

**SITE ASSESSMENT REPORT FOR
IWI SITE
SUMMIT, COOK COUNTY, ILLINOIS**

Prepared for

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Emergency and Remedial Response Branch Region V
77 West Jackson Street
Chicago, Illinois 60604

Prepared by

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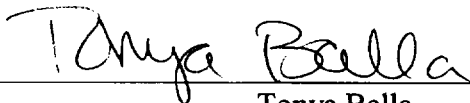
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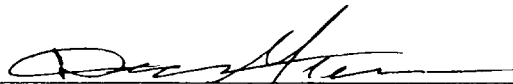
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SECTION 1

INTRODUCTION

On 14 June 2002, United States Environmental Protection Agency (U.S. EPA) On-Scene Coordinator (OSC) Fredrick Micke and the Weston Solutions, Inc. (WESTON®) Superfund Technical Assessment and Response Team (START) initiated a site assessment at the IWI site located in Summit, Cook County, Illinois. The site assessment activities were conducted under Technical Document Directive (TDD) S05-0205-006. Sample analyses were conducted under analytical TDD S05-0206-011.

1.1 OBJECTIVES AND SCOPE OF SITE ASSESSMENT

The objective of this site assessment was to gather information to characterize the current state of the IWI site. Specific objectives of this site assessment were as follows:

- Determine if soil contamination is present on-site;
- Determine the nature of the contents of on-site drums and chemical totes;
- Determine the potential threats to human health and the environment;
- Evaluate the need for further site characterization, remediation, or removal.

To accomplish these objectives, the site assessment activities consisted of collecting soil, drum, and chemical tote samples from the site and selectively analyzing the samples for organic and inorganic parameters and characteristics of hazardous waste.

1.2 REPORT ORGANIZATION

This site assessment report is organized into the following sections.

- **Section 1-Introduction** - The Introduction provides a brief description of the objectives and scope of the site assessment activities.
- **Section 2-Site Background** - The Site Background section provides a site description, the site history, and a summary of previous investigations.
- **Section 3-Environmental Investigation Procedures** - This section describes the methods and procedures used during the site assessment activities.
- **Section 4-Environmental Investigation Results** -- The Environmental Investigation Results section describes the results of sample analysis.
- **Section 5-Threats to Human Health and the Environment** - This section identifies conditions that warrant a removal action under the National Oil and Hazardous Substances Contingency Plan (NCP).
- **Section 6-Conclusions and Recommendations** - The findings of the site assessment activities are summarized and recommendations for further activities are provided.
- **Section 7-References** - A list of references utilized in compiling the report is provided.

SECTION 2

SITE BACKGROUND

2.1 SITE DESCRIPTION

The IWI site is located at 7738 West 61st Place in Summit, Cook County, Illinois. The geographic coordinates of the site are 41°46'47" north latitude and 87°48'51" west longitude. The approximately 1.7-acres, square-shaped site is bounded to the south by 61st Place and in all other directions by private property. A chain-link fence surrounds the site, with a hole in the fence along the northwest side of the property and a temporary fence at the south end of the property (Figure 2-1). There are three main buildings within the site's boundaries. The largest building is approximately 45,000 square feet and consists of five separate rooms and several floors. The stack building is approximately 5,000 square feet. The building known as building three, located between the stack building and the water tower, is approximately 1,000 square feet. Other key features on-site include dilapidated buildings, large debris piles, an old building foundation, above-ground storage tanks (ASTs), 55-gallon drums, and chemical totes.

The site is situated in a mixed area of both industrial and residential use. A residential neighborhood is located directly south of the site across 61st Place. A recreational-use water body is located within a 1/4 mile of the site, and the Chicago Sanitary and Ship Canal is located less than 3/4 mile to the west. The Des Plaines River is located approximately 1 mile west of the site (Figure 2-1).

2.2 SITE HISTORY

According to the Village of Summit Building Code Enforcement Officer, Mr. Jeffrey Duley, IWI, Inc., also known as Itasco, was owned and operated by Mr. Glenn Wellman. Operations at the site included chemical tote, drum, and pail reconditioning and processing. The original source(s) of the

on-site containers is unknown. According to Mr. Duley, operations ceased at the site in 1996, and Mr. Wellman has since passed away.

Mr. Duley noted the difference in elevation of the adjacent property to the west. Mr. Duley said that this elevation difference was a result of backfilling done by the adjacent property owner because runoff from the IWI Site was crossing the property boundary and leaving stains and odors in the adjacent parking lot.

According to records from the Illinois Environmental Protection Agency (IEPA), a fire occurred at the facility on 14 August 1985. The IEPA's emergency response unit responded to this fire and conducted sampling to determine if a hazard was present. A Freedom of Information Act (FOIA) request has been sent to IEPA to retrieve further information about the sampling done following the abovementioned fire.

In addition to the August 1985 fire, another fire occurred in May 2002. U.S. EPA responded to this fire, which consumed the two office buildings and severely damaged sections of the other buildings. The Village of Summit ordered the severely damaged office buildings to be demolished. M&R Wrecking, of McCook, Illinois, conducted the demolition activities. The debris from this demolition remains on-site.

SECTION 3

ENVIRONMENTAL INVESTIGATION PROCEDURES

On 24 and 25 June 2002, a START Investigation Team consisting of OSC Fredrick Micke (U.S. EPA) and START members Mr. Rick Mehl, Mr. Joseph Ruiz, and Mr. Greg Gehrig (WESTON) conducted a site assessment of the IWI property. The site assessment scheduled collecting samples to determine if hazardous materials were present on-site and to determine if those materials posed a significant threat to human health or the environment. Specific site assessment observations and activities are detailed below.

3.1 SITE CONDITIONS

At the time of this investigation, access to the site was unrestricted. The chain-link fence bordering the site to the north had a hole cut in it that was approximately 4 feet wide. The temporary fencing located on the southern border of the site adjacent to 61st Place is secured with wire ties and can be easily opened. There is evidence of trespassing including graffiti throughout the site. Furthermore, many of the site buildings were significantly damaged by the fire and were inaccessible because of severe roof or floor damage. Photographs of the site are provided in Appendix A, and site physical conditions are presented in Figure 3-1.

During the initial site reconnaissance a MultiRAE photoionization detector (PID) and a GM Pancake were used to determine if either organic or radiological contamination was present inside the site buildings. Both PID and radiological readings were zero.

The main building was determined to have an accessible second floor. Upon observing this second floor room, it was determined that the floor damage was sever enough to prevent full exploration of the second floor. Approximately 41 containers were noted on the second floor, including two fiberglass ASTs (15,000 gallons each), one 500-gallon AST, one 275-AST, and 27 55-gallon drums.

Also observed during the initial site reconnaissance was the large number of containers that were leaking, many containers had an oily substance near the top and sides of the container. The leaking containers of the most concern are located in the drum storage area. These drums are stacked precariously on top of each other, and the drums are in very poor condition. In addition, a stream of black oily liquid with a heavy sheen flows from the entryway to this area to the drainage ditch that is located along the western boundary of the site. Mr. Duley was told that the owner of the western adjacent property had to raise the elevation of his parking lot in order to prevent this runoff from staining his property.

Approximately 170 fifty-five-gallon drums were identified during the site assessment. Many of these drums were inaccessible because they were stacked or because they were unstable due to their deteriorated condition. Many of the drums were leaking or were improperly sealed. Drums located in the drum storage area south of room five were leaking and were draining into the drainage ditch to the west (Figures 3-1 and 3-6). Furthermore, chemical totes of varying capacity were also encountered on-site. The capacity of these totes varied from 345 to 600 gallons. The majority of the cylindrical or square totes, however, were 345-gallon steel totes.

In addition to the on-site drums and totes, several ASTs were also identified. The ASTs ranged in size from 275 to 20,000 gallons. A list of all containers observed, their approximate volume, their approximate location, and the amount of material contained in each is presented in Table 3-1.

In the stack building, a room containing a dried sludge floor was encountered (Figure 3-8). A loading chute extends into the room and was probably used for dumping sludge into the room.

The types of material discovered included: solid and liquid paint waste; solid, semisolid, and liquid petroleum waste; a black rubbery sludge material of unknown origin; clear liquids; and mixtures of various oil and water. The approximate quantity of material present onsite within the various types of containers is difficult to evaluate. Based on the numbers of containers and their respective sizes

listed in Table 3-1 the potential volume of containerized waste present on the site could vary from below 75,000 gallons to a maximum of approximately 225,000 gallons.

In addition to containers, the site was littered with large amounts of debris. The debris piles contained demolition debris from the demolition of the two buildings following the May 2002 fire. Approximately 1,000 square feet (ft²) of 3/8-inch transite panels were located in one of the debris piles. These panels were severely damaged and friable. During the initial site walk on 14 June 2002, there was on-site ponding; a bright-green tint was noted in the water. On-site sumps are detailed in Table 3-2, and other environmental concerns noted during the site assessment are detailed in Table 3-3.

3.2 SAMPLING ACTIVITIES

Twelve samples from drums and chemical totes were collected utilizing Level B personal protective equipment (PPE). Many of the drums and totes were located in areas with significant structural damage or were stacked in a precarious manner. The drums and totes selected for sampling were chosen based on accessibility. Soil sample collection locations are shown in the room detail figures (Figures 3-5 through 3-10). Sample collection procedures are described below.

A total of three investigative surface soil samples were collected. These soil samples were collected utilizing Level D PPE. A physical description of conditions at each sample location follows:

- **IWI-13** - This sample was collected from the drainage ditch in the area where significant staining from the drum storage area was observed.
- **IWI-14** - This sample was collected from the drainage ditch directly north of sample IWI-13. The drainage ditch appeared to have a flow direction of north to south.
- **IWI-15** - This sample was collected in the area located east of the railroad car AST. Staining was observed in the area, and a strong odor was noted.

Soil samples were collected with disposable plastic scoops. A grab sample was first collected for volatile organic compound (VOC) analysis and was packed in Encore samplers. The remainder of the sample was packed in a 32-ounce, clear, wide-mouth, glass jar with a Teflon-lined lid. Nitrile gloves were worn during sample collection and were changed before each subsequent sample was taken. Soil samples were collected from approximately 0 to 3 inches below ground surface (bgs).

Container samples were collected either with drum thieves or with disposable plastic scoops and were placed into clear, wide-mouth, glass jars with Teflon-lined lids. The method of collection depended on the consistency and viscosity of the material in the container. When container contents were mainly liquid, VOC samples were collected in separate vials pre-preserved with hydrochloric acid (HCl). Figures 3-2 through 3-8 show the details of individual rooms within the site buildings as well as container sample locations.

All soil samples were analyzed for Target Analyte List (TAL) metals, VOCs, semivolatile organic compounds (SVOCs), pesticides, polychlorinated biphenyl compounds (PCBs), Toxic Characteristic Leaching Procedure (TCLP) organic compounds (VOCs, SVOCs, and pesticides), and TCLP metals. All container samples were analyzed for TAL metals, TCLP organic compounds (VOCs and SVOCs), TCLP metals, PCBs, reactive cyanide, reactive sulfide, pH, and flashpoint, and a paint filter analysis was also conducted. In addition, container samples IWI-1, IWI-2, and IWI-3 were also analyzed for VOCs, because the contents of these containers were mainly liquid.

All samples were labeled and preserved in coolers with ice immediately after sample collection. At the end of the sampling period, samples were packed, transported, and relinquished under chain of custody to PDP Analytical Services, in The Woodlands, Texas, for analysis.

Spent personal protective equipment (PPE) and contaminated debris generated during the sampling event were containerized in plastic bags, labeled, and stored on-site.

SECTION 4

ENVIRONMENTAL INVESTIGATION RESULTS

Three investigative soil samples were collected during this investigation and were shipped to PDP Analytical Services, in The Woodlands, Texas. Twelve investigative container samples were collected from drums and chemical totes and were delivered to the same laboratory. Analytical parameter selections for each sample are outlined in Section 3.2. Analytical results for these analyses were compared to regulatory criteria levels. Results of the comparison are presented in Tables 4-1 through 4-8. Three sets of criteria were used for the comparison:

- U.S. EPA Region IX Preliminary Remediation Goals (PRGs) for industrial areas;
- Illinois Administrative Code (IAC) Title 35, Part 742 *Tiered Approach to Corrective Action Objectives* (TACO) Tier 1 Soil Remediation Objectives for Industrial/Commercial Properties;
- 40 Code of Federal Regulations (CFR) Part 261, characteristics of hazardous waste.

4.1 SOIL SAMPLING

4.1.1 Soil Analysis for Hazardous Waste Characteristics

4.1.1.1 TCLP Metals in Soil

Three surface soil samples were analyzed for TCLP metals from locations IWI-13 through IWI-15. As indicated in Table 4-1, concentrations of TCLP lead exceeded the criteria for toxicity in sample IWI-14. At location IWI-14, TCLP lead was detected at 12.7 milligrams per liter (mg/L). The regulatory level, as specified in 40 CFR, Chapter 1, 261.24 is 5.0 mg/L for lead.

4.1.1.2 TCLP VOCs in Soil

Three surface soil samples were analyzed for TCLP VOCs from locations IWI-13 through IWI-15. None of the results were detected above the method detection limits.

4.1.1.3 TCLP SVOCs in Soil

Three surface soil samples were analyzed for TCLP SVOCs from locations IWI-13 through IWI-15. None of the results were above the method detection limits.

4.1.2 TAL Metals in Soil

Three surface soil samples were analyzed for TAL metals (IWI-13, IWI-14, and IWI-15). All samples submitted had concentrations of lead above the Region IV PRG industrial criteria level of 750 milligrams per kilogram (mg/kg) (Table 4-2). Lead concentrations in the samples ranged from 1,850 mg/kg to 4,240 mg/kg. In addition, the chromium concentration in sample IWI-13 exceeded the industrial criteria (420 mg/kg) at a concentration of 820 mg/kg. No other TAL metals concentrations were greater than the criteria levels in these soil samples.

4.1.3 PCBs and Pesticides in Soil

Three surface soil samples were analyzed for PCBs and pesticides (IWI-13, IWI-14, and IWI-15). No pesticide or PCB compounds were detected above the method detection limits in these samples.

4.1.4 VOCs in Soil

Three surface soil samples were analyzed for VOC analysis (IWI-13, IWI-14, and IWI-15). The results from the VOC analysis are presented in Table 4-3. Results indicate that no VOCs were

detected above the criteria levels and only 11 VOCs were measured at concentrations at or above the method detection limits.

4.1.5 SVOCs in Soil

Three surface soil samples (IWI-13, IWI-14, and IWI-15) were analyzed for SVOCs. Bis(2-ethylhexyl)phthalate (DEHP) was the only SVOC detected above the method detection limits, and its concentrations exceeded criteria levels in each of the samples tested (Table 4-3). Concentrations of bis(2-ethylhexyl)phthalate ranged from 420,000 ug/kg to 1,500,000 ug/kg. The Region IX criteria for bis(2-ethylhexyl)phthalate is 180,000 ug/kg. Bis(2-ethylhexyl)phthalate is not listed in the TACO Tier 1 Soil Remediation Objectives for Industrial/Commercial properties. No other SVOCs exceeded criteria levels in any of these samples.

4.2 CONTAINER SAMPLING

4.2.1 Container Sample Analysis for Hazardous Waste Characteristics

4.2.1.1 TCLP Metals in Container Sample

TCLP metals analysis was performed on the 12 container samples (IWI-1 through IWI-12). As indicated in Table 4-4, both chromium and lead concentrations exceeded the criteria for toxicity, which is 5.0 mg/L for both chromium and lead. Chromium exceeded the regulatory level in IWI-1 at a concentration of 42.4 mg/L. Lead exceeded the regulatory level in IWI-4 and IWI-7 at concentrations of 7.18 and 281 mg/L, respectively. None of the other compounds in the TCLP metals analysis exceeded the regulatory level for toxicity.

4.2.1.2 TCLP VOCs in Container Sample

Three container samples were analyzed for TCLP VOCs. Results from the analysis of TCLP VOCs on container samples IWI-1, IWI-2, and IWI-3 are presented in Table 4-5. No VOCs were detected at concentrations greater than the regulatory level for toxicity. Two compounds were detected above their method detection limits: 2-butanone, at concentrations of 3,700 and 1,500 ug/L in IWI-1 and IWI-11, respectively; and tetrachloroethene at a concentration of 210 ug/L in IWI-3.

4.2.1.3 TCLP SVOCs in Container Sample

Twelve container samples, IWI-1 through IWI-12, were analyzed for TCLP SVOCs. No SVOCs were detected at concentrations greater than the method detection limit.

4.2.1.4 Other Hazardous Waste Characteristics in Container Sample

Analyses for other hazardous waste characteristics were performed on the material collected from the 12 containers (IWI-1 through IWI-12). The results are presented in Table 4-6. The results indicate that the material contained in all of the containers, except IWI-9, exhibits the characteristic of a hazardous waste due to ignitability. The material in all of the containers except IWI-9 had a flashpoint below the regulatory level of 140 degrees Fahrenheit (°F).

The other analysis performed to determine if the container samples exhibit the characteristics of a hazardous waste were: cyanide reactivity, sulfide reactivity, pH, and paint filter test. All of the container samples had levels that were within the regulatory limits for cyanide reactivity, sulfide reactivity, and pH. In addition, container samples IWI-1, IWI-2, IWI-3, and IWI-6 failed the paint filter test, which indicates that they contained free liquid.

4.2.2 Container Sample Analysis for TAL Metals

Twelve container samples were collected and submitted for TAL metals analysis (IWI-1 through IWI-12). The results are presented in Table 4-7. Three compounds exceeded the criteria level in five samples. Antimony was detected at an elevated level in sample IWI-4 at a concentration of 2,200 mg/kg. Chromium was detected at elevated levels in samples IWI-1 and IWI-5 at concentrations of 14,000 and 500 mg/kg, respectively. Lead was detected at elevated levels in IWI-4, IWI-5, IWI-7, and IWI-8 with concentrations ranging from 1,770 to 15,900 mg/kg. No other TAL metals were found at significant elevated levels in the container samples.

4.2.3 Container Sample Analysis for PCBs

Twelve container samples were analyzed for PCBs (IWI-1 through IWI-12). No PCB compounds were detected above the method detection limits in these samples.

4.2.4 Container Sample Analysis for VOCs

Three container samples were analyzed for VOCs (IWI-1, IWI-2, and IWI-3). The results from the VOC analysis are presented in Table 4-8. Results indicate that 11 different VOCs were detected at elevated levels. IWI-1 had elevated levels of 1,3,5-Trimethylbenzene (21,000 mg/kg), n-propylbenzene (11,000 mg/kg), and naphthalene (4,600 mg/kg). IWI-2 did not have any compounds detected at elevated levels. IWI-3 had elevated levels of m&p-xylene (1,600 mg/kg) and toluene (400 mg/kg).

SECTION 5

THREATS TO HUMAN HEALTH AND THE ENVIRONMENT

Conditions present on the IWI site warranting an appropriate removal action as set forth in paragraph (b)(2) of 40 CFR Part 300.415 of the NCP include the following:

- **Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants.**

Analytical results indicate that surface soil has been impacted by elevated concentrations of lead and chromium. Total lead concentrations on-site were detected up to a maximum concentration of 4,240 mg/kg and exceeded the U.S. EPA Region IX PRGs for industrial soil (750 mg/kg) in all of the soil samples. In one of these samples, chromium exceeded the U.S. EPA Region IX PRGs and was detected at a concentration of 820 mg/kg. In addition, TCLP lead (12.7 mg/L at location IWI-14) in site soils exceeded the criteria for toxicity. The contents of multiple on-site containers were found to have flashpoints below the minimum temperature level (140 °F) which indicates that the material exhibits the characteristics of a hazardous waste for ignitability as outlined in 40 CFR, Chapter 1, Section 261. Because access to the site is unrestricted and because human activity is apparent at the site, the presence of high lead and chromium levels in site soils as well as the presence of hazardous wastes in the on-site containers increases the likelihood that the site poses a significant threat to human health and the environment.

- **Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.**

Chromium and lead concentrations in site soils significantly exceeded criteria levels; samples containing the highest concentrations were from the drainage channel. This drainage channel is suspected to conduct surface water off-site, possibly transporting contamination off-site into streets and drainage systems. In addition, nearby residences may also be affected by the transport of lead

in soil particles that have been eroded and transported by high winds. These conditions may have caused hazardous substances or pollutants to migrate off-site or to be released. A clear path of waste migration was observed draining west from the drum storage area to the drainage ditch on the western side of the property.

- **Threat of fire or explosion.**

Drums, chemical totes, and ASTs were observed on the IWI site. The locations and conditions of these containers varied substantially. A majority of the drums were severely damaged and degraded as they were leaking, rusting, and bulging. Most of the chemical totes appeared to be in suitable shape, but some have deteriorated. The contents of these containers are mostly unknown though many containers appeared to be empty. The possibility of fire or explosion exists if the material inside a container is highly flammable. The contents of 11 of the 12 containers sampled were found to have flashpoints below 140 °F, which exceeds the regulatory limits used to define a hazardous waste for ignitability. The flammability of the material inside the containers coupled with the possibility of a spark being generated from collapsing drums or structures presents a threat of fire or explosion. Two fires have already occurred at the site in August 1985 and in May 2002.

- **Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers that may pose a threat of release.**

Drums, chemical totes, and ASTs were observed on the IWI site. These containers as well as buildings in which these containers are stored have deteriorated substantially as many of the containers are bulging, rusting, or leaking. Eleven of the containers sampled for hazardous waste characteristics had properties that exceeded the criteria levels outlined in 40 CFR, Chapter 1, 261.21 and 261.23. In addition, many of the container samples had elevated concentrations of metals (antimony, chromium, and lead) and TCLP metals (chromium and lead). The condition of these containers coupled with the structural instability of the on-site buildings poses a significant threat of a release.

SECTION 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 CONCLUSION

The IWI site is located at 7738 West 61st Place in Summit, Cook County, Illinois. Land use for the surrounding properties includes both industrial and residential land use. Recreational-use water bodies are within 1/4 mile of the site boundary. A residential neighborhood is located directly south of the site across 61st Place. The Chicago Sanitary and Ship Canal is located less than 3/4 mile west, and the Des Plaines River is located 1 mile west of the site. Most of the site is enclosed by a fence; however, access appears to be unrestricted as START noted numerous fence breaks and evidence of trespassing.

On 24 and 25 June 2002, START conducted a site assessment and discovered large amounts of debris; numerous dilapidated drums, chemical totes, and ASTs; and several severely dilapidated buildings. Three investigative soil samples and 12 container samples were collected and analyzed for a variety of potential contaminants.

Soil sampling results for metals analyses indicated levels of lead and chromium in site soils above U.S. EPA Region IX PRG levels. Based on the results of TCLP analysis of site soils and according to 40 CFR Chapter 1 - 261.24, hazardous levels of lead were detected in site soils.

Materials from 11 of the 12 containers sampled were classified as hazardous waste based on the materials' flashpoints, which were below 140 °F. Materials exhibiting flashpoints below 140 °F exhibits criteria of a hazardous waste for ignitability. In addition, some of the material sampled had elevated concentrations of TCLP metals, TAL metals, and VOCs.

Based on the site assessment, contaminated soil and material stored in the containers at the IWI site poses a significant threat to human health as defined under 40 CFR §300.415(b)(2)(i)-(viii)

1. Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances of pollutants or contaminants exists on-site.
2. Weather conditions may cause hazardous substances or pollutants or contaminants to migrate or be released.
3. The threat of fire or explosion exists on-site.
4. Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, may pose a threat of release.

6.2 RECOMMENDATIONS

Based on the conclusions drawn from the information gathered during the site assessment and the analytical results, START recommends the following:

- The on-site containers should be further characterized.
- Containers that are determined to contain a hazardous waste should be removed and disposed of at a licensed hazardous waste disposal facility.
- An extent of contamination investigation of site soils should be conducted to determine the volume of soil exceeding cleanup objectives.

SECTION 7

REFERENCES

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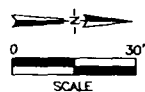
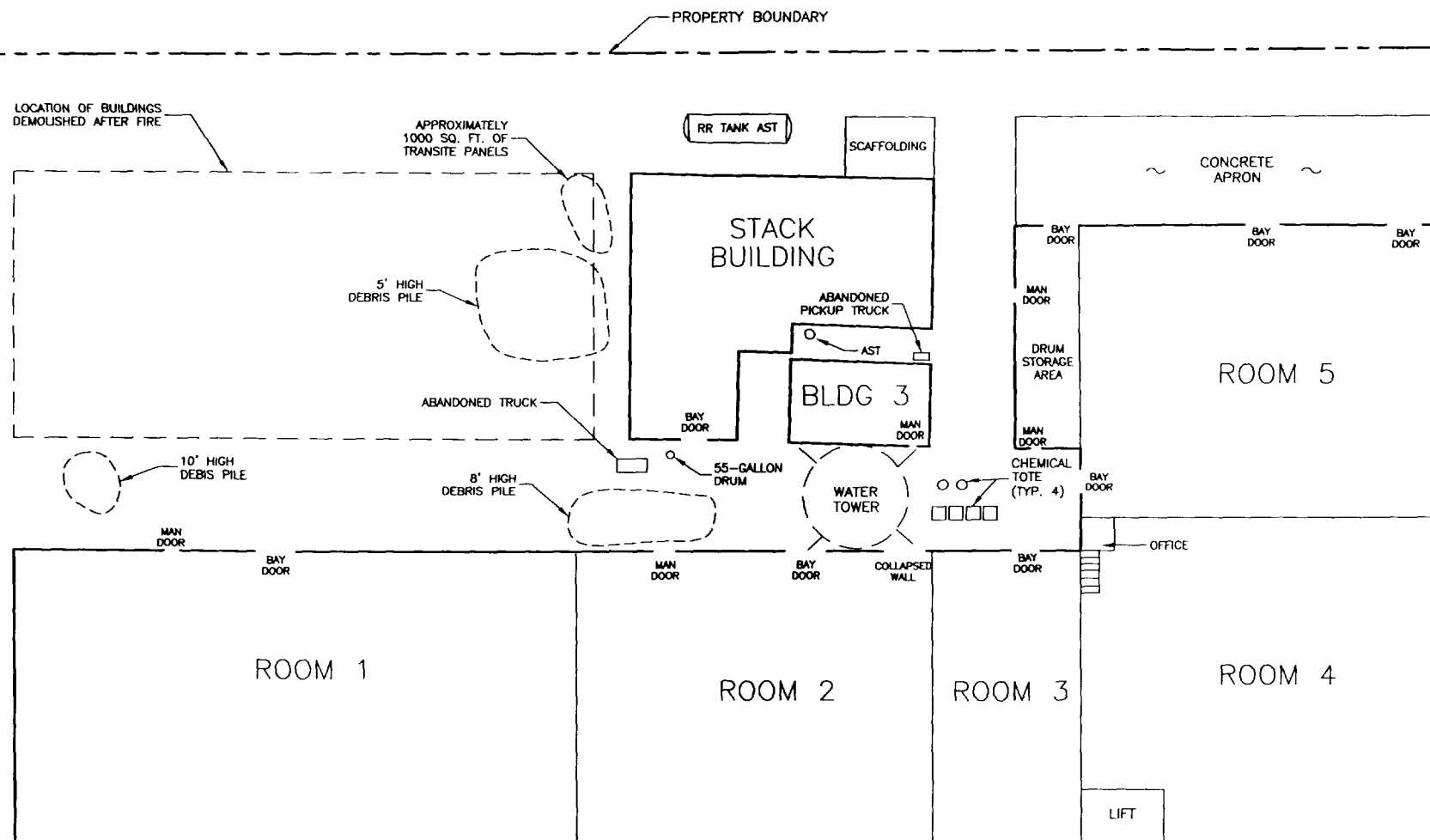
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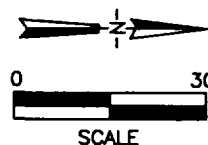
FIGURES



SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM
 U.S. EPA CONTRACT No. 68-W-00-119
 WORK ASSIGNMENT No. 0205-006
 DOCUMENT CONTROL No. RFW263-2A-ACFC

DETAILED SITE MAP
 IWI SITE
 Summit, Illinois

FIGURE 3-1



Summit, Illinois

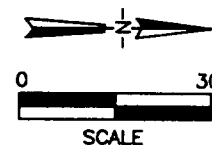
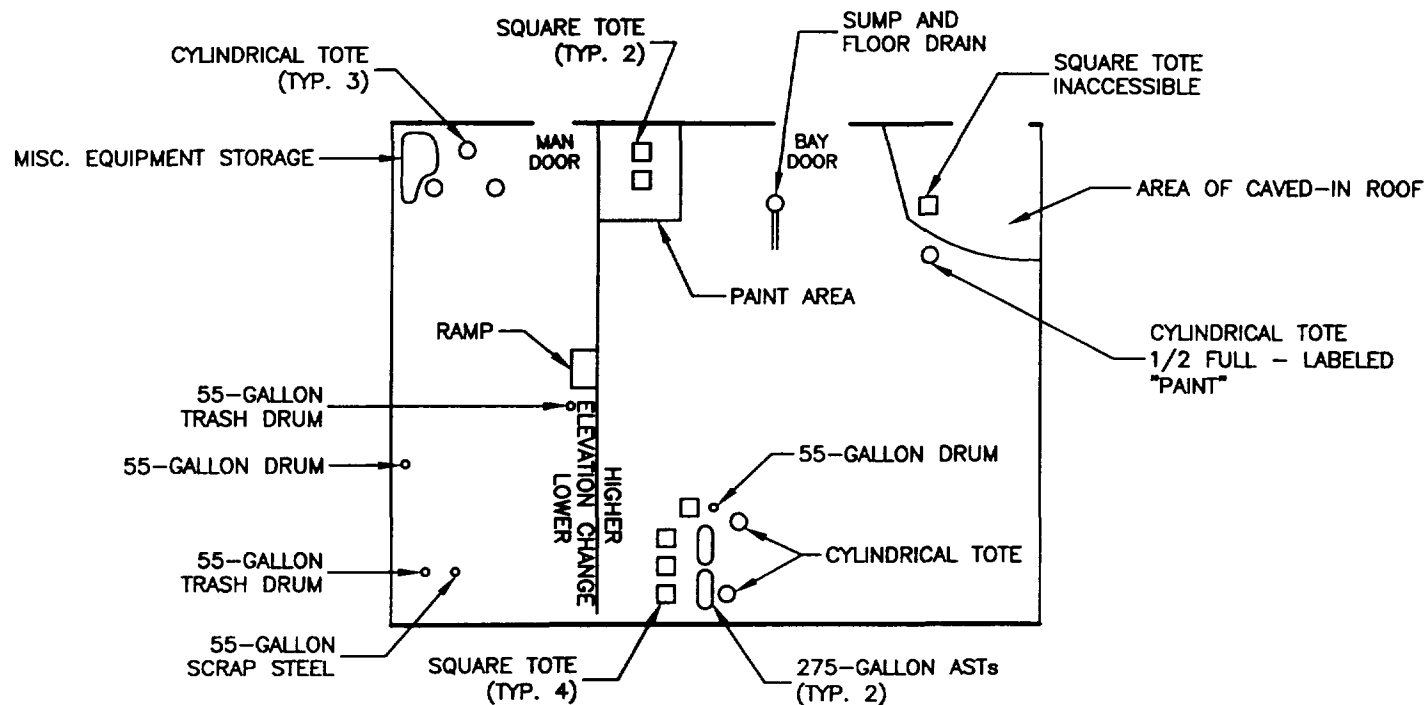


FIGURE 3-3

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM
 U.S. EPA CONTRACT No. 68-W-00-119
 WORK ASSIGNMENT No. 0205-006
 DOCUMENT CONTROL No. RFW263-2A-ACFC

ROOM 2 DETAIL
 IWI SITE
 Summit, Illinois

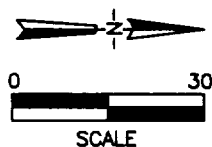
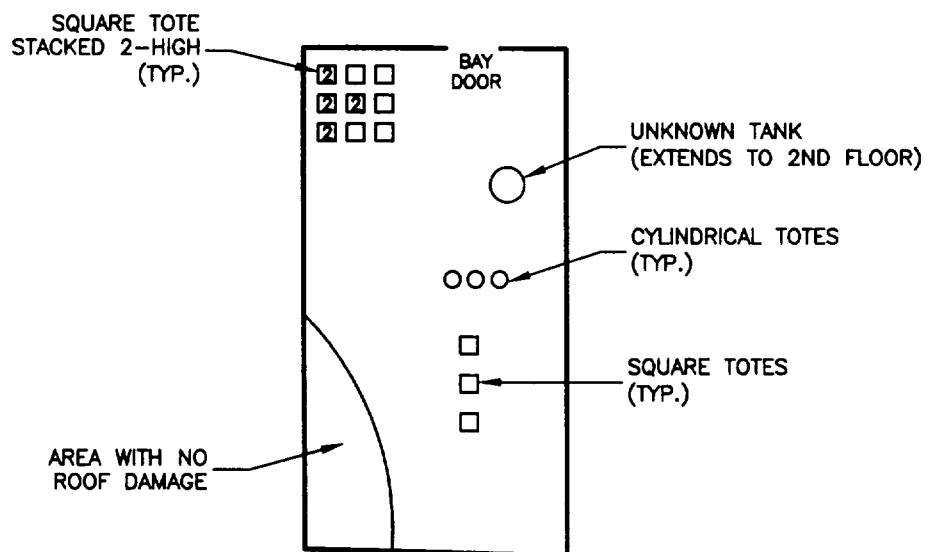


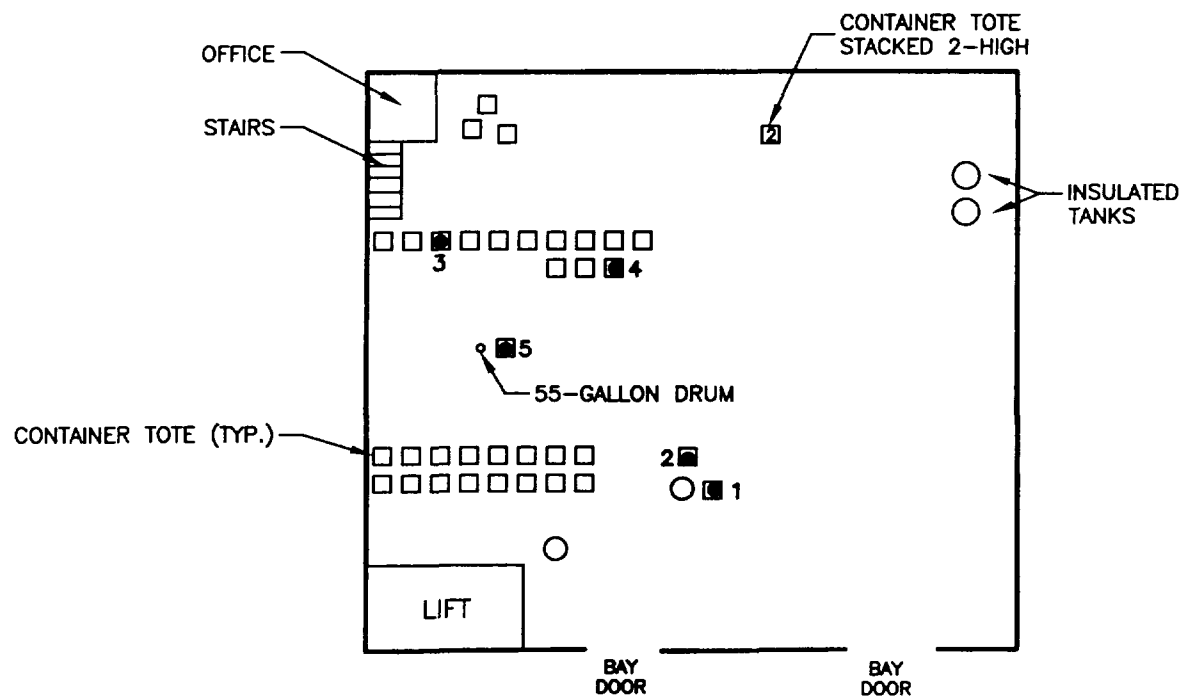
FIGURE 3-4

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

U.S. EPA CONTRACT No. 68-W-00-119
 WORK ASSIGNMENT No. 0205-006
 DOCUMENT CONTROL No. RFW263-2A-ACFC

ROOM 3 DETAIL

IWI SITE
 Summit, Illinois



LEGEND

2 • CONTAINER SAMPLE LOCATION

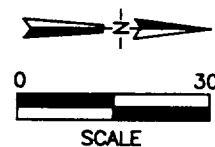
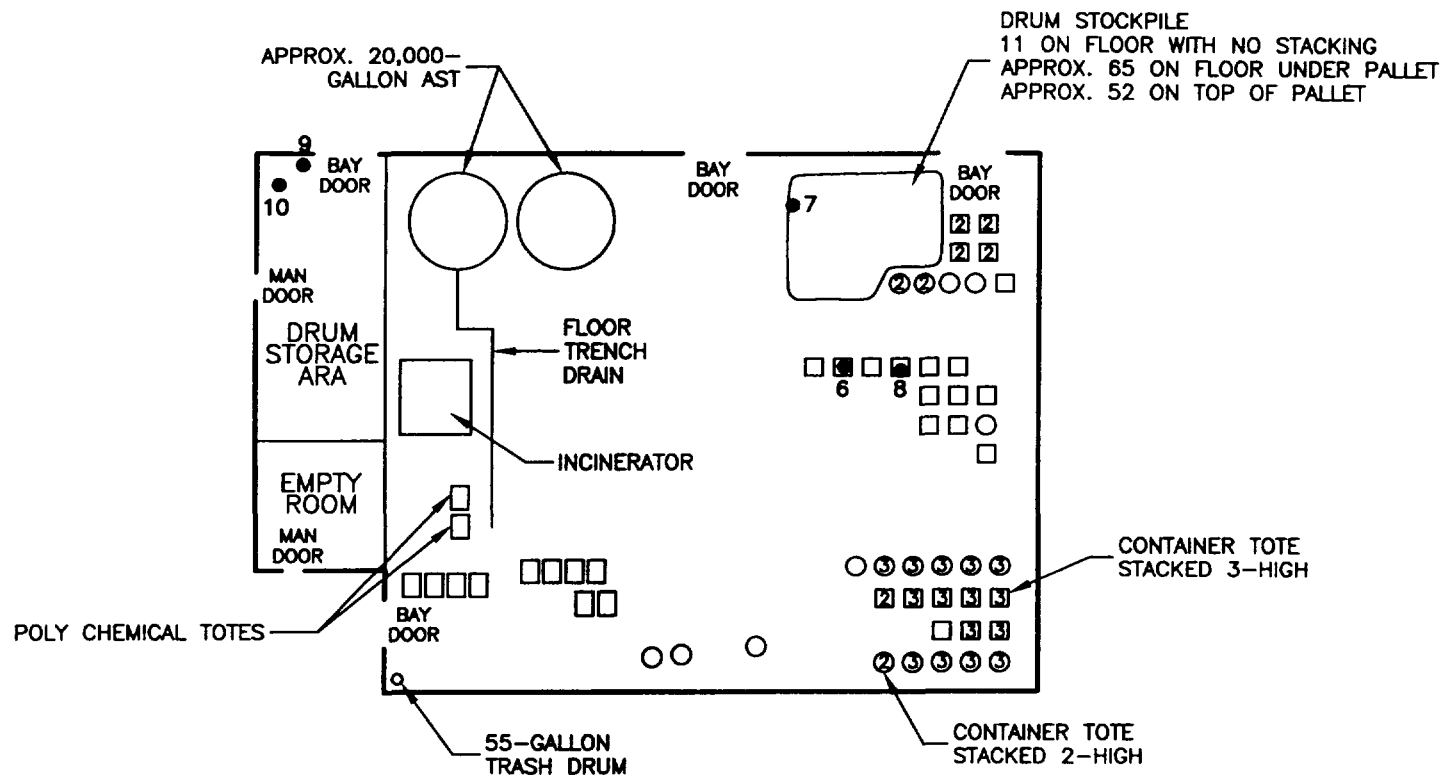


FIGURE 3-5

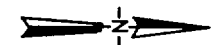
SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM
 U.S. EPA CONTRACT No. 68-W-00-119
 WORK ASSIGNMENT No. 0205-006
 DOCUMENT CONTROL No. RFW263-2A-ACFC

ROOM 4 DETAIL
 IWI SITE
 Summit, Illinois



LEGEND

6 • CONTAINER SAMPLE LOCATION



0 30'

SCALE

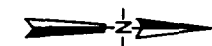
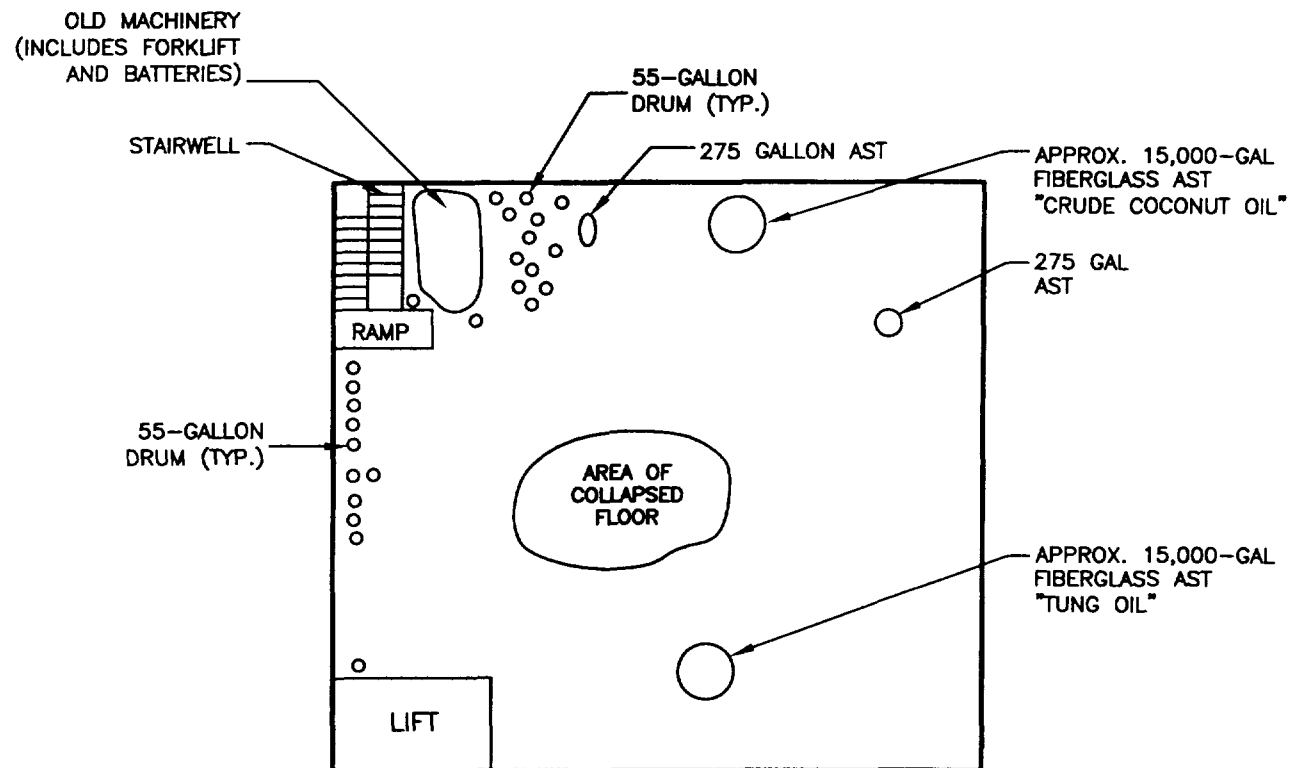
FIGURE 3-6

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM
U.S. EPA CONTRACT No. 68-W-00-119
WORK ASSIGNMENT No. 0205-006
DOCUMENT CONTROL No. RFW263-2A-ACFC

ROOM 5 DETAIL

IWI SITE

Summit, Illinois



0 30'

SCALE

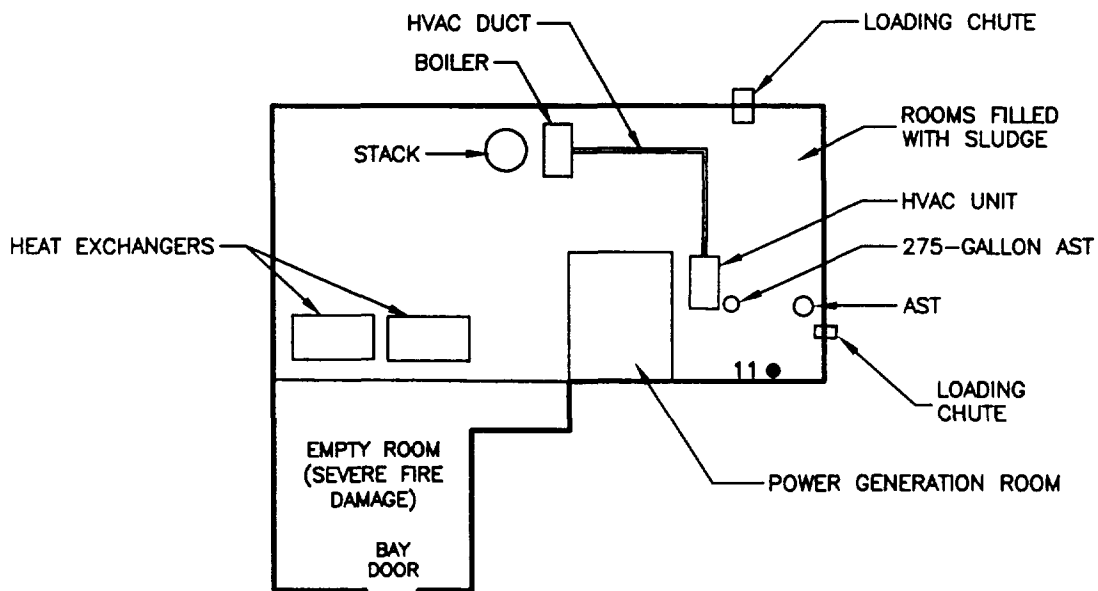
FIGURE 3-7

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM
 U.S. EPA CONTRACT No. 68-W-00-119
 WORK ASSIGNMENT No. 0205-006
 DOCUMENT CONTROL No. RFW263-2A-ACFC

UPSTAIRS DETAIL

IWI SITE

Summit, Illinois



LEGEND

11 ● SAMPLE LOCATION

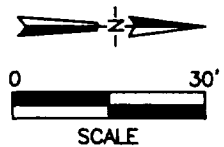


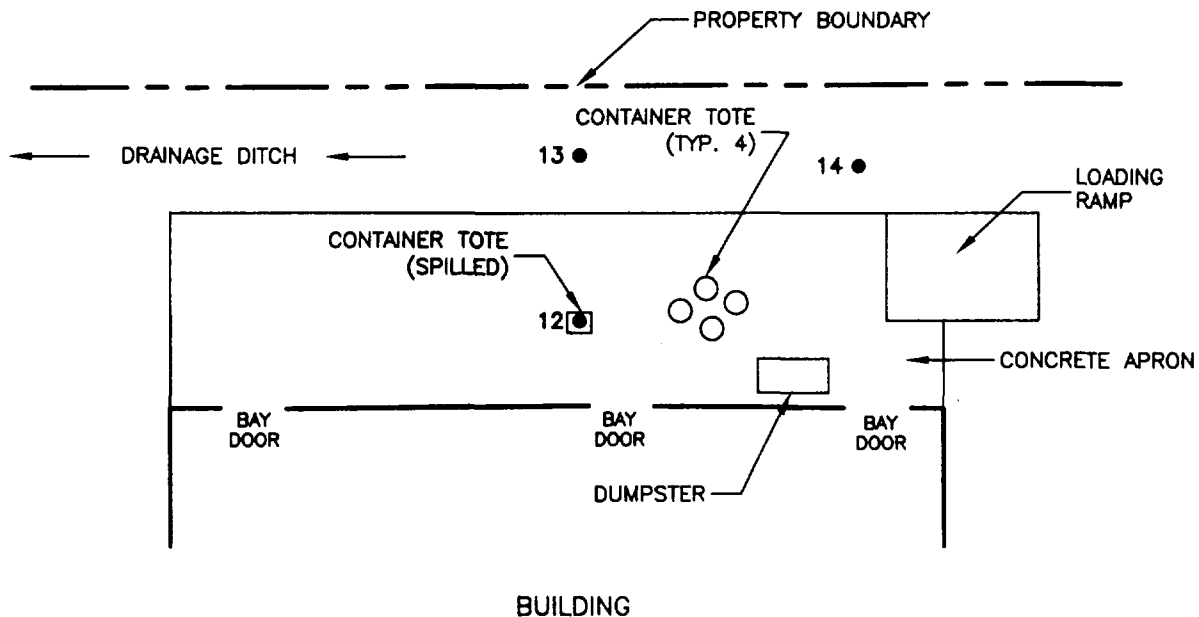
FIGURE 3-8

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

U.S. EPA CONTRACT No. 68-W-00-119
 WORK ASSIGNMENT No. 0205-006
 DOCUMENT CONTROL No. RFW263-2A-ACFC

STACK BUILDING DETAIL

IWI SITE
 Summit, Illinois



LEGEND

- 12 ● CONTAINER SAMPLE LOCATION
- 13 ⊙ SOIL SAMPLE LOCATION

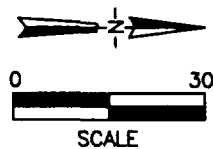
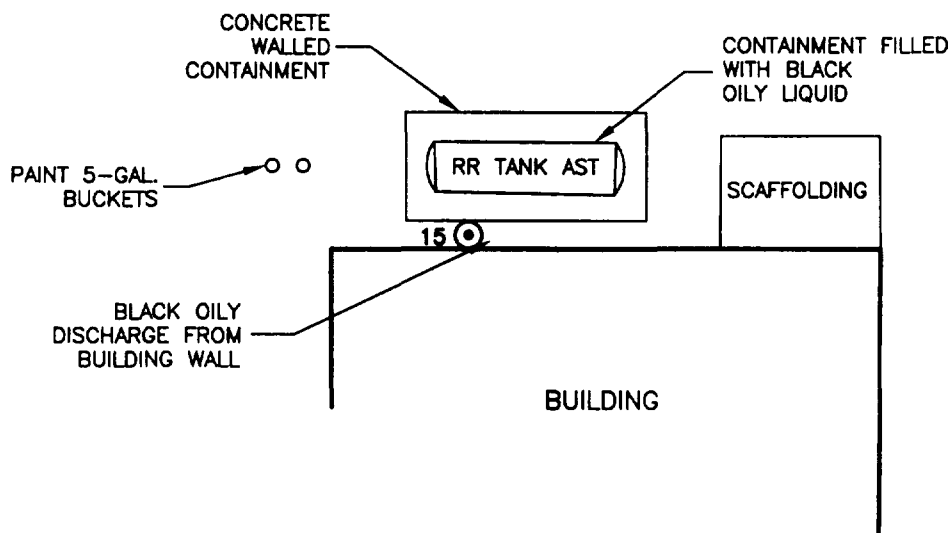


FIGURE 3-9

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM
 U.S. EPA CONTRACT No. 68-W-00-119
 WORK ASSIGNMENT No. 0205-006
 DOCUMENT CONTROL No. RFW263-2A-ACFC

AREA WEST OF ROOM 5 DETAIL
 IWI SITE
 Summit, Illinois



LEGEND

15 SOIL SAMPLE LOCATION

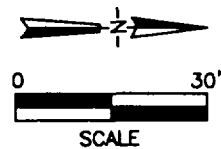


FIGURE 3-10

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

U.S. EPA CONTRACT No. 68-W-00-119
 WORK ASSIGNMENT No. 0205-006
 DOCUMENT CONTROL No. RFW263-2A-ACFC

AREA WEST OF STACK BUILDING

IWI SITE

Summit, Illinois

TABLES

Table 3 - 1

Container Inventory
IWI Site, Summit, IL

Location	Type of Container	Approximate Volume (Gallons)	% Full	Number	Tank Material	Suspected Contents	Comments
Building 3	55-Gallon Drum	55	Unknown	5	Steel	A few of the drums are open and overflowing with debris, including metal shavings.	Unable to access the drums because of the severe structural damage to this room's roof, which has almost completely fallen.
Building 3	55-Gallon Drum	55	Unknown	1	Poly	Unknown	Unable to access the drums because of the severe structural damage to this room's roof, which has almost completely fallen.
Concrete Apron Area	55-Gallon Drum	55	100	2	Poly	One drum is suspected to contain water, the other drum's contents are unknown.	Drums located in the western drainage ditch.
Concrete Apron Area	Cylindrical Chemical Totes	500	50	4	Steel	Petroleum based products and sludge and other contents that could not be determined.	
Concrete Apron Area	Dumpster	1000	100	1	Steel	Soil and debris.	
Concrete Apron Area	Square Chemical Totes	345	75	1	Fiberglass	Rubber-like substance, tan in color, stiff but stretchy.	Container has been flipped over and contents have spilled onto the concrete and dried in place. One analytical sample of these contents was collected.
Cortyard Near Water Tower	55-Gallon Drum	55	100	1	Steel	Unknown	
Cortyard Near Water Tower	Cylindrical Chemical Totes	345	0	1	Steel	NA	
Drum Storage Area	55-Gallon Drum	55	Unknown	Unknown	Steel	Paint waste and petroleum products.	Room was determined to be large enough to hold up to approximately 750 * drums. Because the drums are damaged, rusted, and stacked up to 3 high, unable to determine exactly how many drums are in this room.
Outside Stack Building	Aboveground Storage Tank	1500	Unknown	1	Steel	Unknown	
Outside Stack Building	Aboveground Storage Tank	20000	Unknown	1	Steel	Petroleum products.	Railroad car AST surrounded by a 18" high concrete wall.
Outside Stack Building	Aboveground Storage Tank	1000	Unknown	1	Insulated Steel	Suspected hot water tank.	Fiberglass jacket on the tank, located outside of sludge room.
Power Generation Room	55-Gallon Drum	55	100	1	Steel	Debris	
Room 1	55-Gallon Drum	55	0	2	Steel	Unknown	
Room 1	55-Gallon Drum	55	50	1	Steel	Unknown	

Table 3 - 1
Container Inventory
IWI Site, Summit, IL

Location	Type of Container	Approximate Volume (Gallons)	% Full	Number	Tank Material	Suspected Contents	Comments
Room 1	55-Gallon Drum	55	50	2	Steel	Debris	
Room 1	Cylindrical Chemical Totes	345	0	21	Steel	Unknown	
Room 1	Cylindrical Chemical Totes	345	40	2	Steel	Labeled NaOH	
Room 1	Pails	5	100	2	Plastic	Solids	
Room 1	Square Chemical Totes	345	0	5	Steel	Unknown	Two have the tops cut off.
Room 1	Square Chemical Totes	345	40	1	Steel	Unknown	
Room 2	55-Gallon Drum	55	50	5	Steel	Debris	Used as trash cans
Room 2	Aboveground Storage Tank	275	0	2	Steel	Unknown	
Room 2	Cylindrical Chemical Totes	345	0	3	Steel	Unknown	
Room 2	Paint Cans	1	50-100	5	Steel	Paint	
Room 2	Square Chemical Totes	345	Unknown	8	Steel	Unknown	Some totes are inaccessible because of roof damage.
Room 2	Square Chemical Totes	345	50	1	Steel	Unknown	
Room 3	Aboveground Storage Tank	3000	Unknown	1	Steel	Unknown	Bottom of tank is 6' above floor, and top of tank protrudes above second story's floor level. Second story is inaccessible due to severe structural damage to the building. Piping from tank extends to floor level. Unknown if tank is open or closed at the top.
Room 3	Square Chemical Totes				Steel	Unknown	
Room 4	Aboveground Storage Tank	500	Unknown	2	Unknown	Possible hot water tanks.	Tanks have insulated jackets on them.
Room 4	Cylindrical Chemical Totes	400-500	100	2	Steel	Petroleum based products and sludge, paint products and sludge, and other contents that could not be determined.	
Room 4	Square Chemical Totes	350-600	75-100	37	Steel	Petroleum based products and sludge, paint products and sludge, and other contents that could not be determined.	
Room 5	55-Gallon Drum	55	75-100	125	Steel	Unknown	
Room 5	Aboveground Storage Tank	20000	Unknown	2	Steel	Unknown	
Room 5	Cylindrical Chemical Totes	350-600	50-100	25	Steel	Unknown	
Room 5	Cylindrical Chemical Totes	750	0	1	Steel	Unknown	
Room 5	Cylindrical Chemical Totes	345	0	21	Steel	Unknown	
Room 5	Square Chemical Totes	345	0	60	Steel	Unknown	
Room 5	Square Chemical Totes	400	0	2	Poly	Unknown	

Table 3 - 1

Container Inventory
 IWI Site, Summit, IL

Location	Type of Container	Approximate Volume (Gallons)	% Full	Number	Tank Material	Suspected Contents	Comments
Stack Building	Aboveground Storage Tank	275	Unknown	1	Steel	Petroleum products.	Tank is inaccessible because of sludge that has piled up in room, which creates unstable footing.
Stack Building	Aboveground Storage Tank	750	15	1	Steel	Dried Sludge	Open top tank.
Stack Building	Loading Chute	500	75	1	Steel	Dried Sludge	Chute extends into sludge room and was probably the means of dumping all of the sludge into the room.
Stack Building	Room (which was used as a container)	Unknown	NA	1	NA	Dried Sludge	Room's windows and doors were rigged to prevent the sludge from escaping the room.
Upstairs	55-Gallon Drum	55	25-75	27	Steel	Dried Sludge	
Upstairs	Aboveground Storage Tank	15000	Unknown	1	Fiberglass	Crude Coconut Oil	Appears to be empty.
Upstairs	Aboveground Storage Tank	15000	Unknown	1	Fiberglass	Tung Oil	Appears to contain some material.
Upstairs	Aboveground Storage Tank	500	25-75	1	Steel	Unknown	
Upstairs	Aboveground Storage Tank	275	0	1	Steel	Unknown	
Upstairs	Pails	5	50-100	10	Plastic	Unknown	

* Estimate of 700 drums was based on the size of the room (20 feet by 50 feet), the approximate size of a pallet (16 square feet), four drums per pallet, and the possibility that the pallets are in stacks of three.
 $20 \text{ ft} \times 50 \text{ ft} / (16 \text{ ft}^2 / \text{pallet}) \times 4 \text{ drums/pallet} \times 3 = 750 \text{ drums}$

Table 4 - 1

**Surface Soil TCLP Metals Sampling Results
IWI Site, Summit, IL**

Sample ID	IWI-13	IWI-13D	IWI-14	IWI-15	Criteria Level ^a
Sample Type	soil	soil	soil	soil	
Chemical Name					
Arsenic (mg/L)	0.05 U	0.05 U	0.05 U	0.05 U	5.0
Barium (mg/L)	2.58	3.36	36.4	2.16	100.0
Cadmium (mg/L)	0.05 U	0.05 U	0.274	0.074	1.0
Chromium (mg/L)	0.1 U	0.1 U	0.228	0.1 U	5.0
Lead (mg/L)	2.63 J	4.06 J	12.7	3.31	5.0
Mercury (mg/L)	0.001 U	0.001 U	0.001 U	0.001 U	0.2
Selenium (mg/L)	0.05 UJ	0.05 UJ	0.062	0.05 U	1.0
Silver (mg/L)	0.1 U	0.1 U	0.1 U	0.1 U	5.0

^a 40 CFR - Chapter 1 - 261.24, Maximum concentration of contaminants for the toxicity characteristic

Bold and highlighted sample concentrations are higher than the criteria level for that compound

Sample concentrations flagged with U are below method detection limits

Sample concentrations flagged with J are estimated

mg/L = milligrams per liter

Table 4 - 2

Surface Soil TAL Metals Sampling Results
IWI Site, Summit, IL

Sample ID	IWI-13	IWI-13D	IWI-14	IWI-15	Criteria Level	
Sample Type	soil	soil	soil	soil	Industrial	
Chemical Name					Region IX ^a	TACO ^b
Aluminum (mg/kg)	3,800	3,400	6,200	12,000	100,000	N.L.
Antimony (mg/kg)	59 J	26 J	44 J	18 J	818	82
Arsenic (mg/kg)	29.5	15.6	12.2	37.2	439	61
Barium (mg/kg)	1,600 J	980 J	11,000 J	1,300 J	100,000	14,000
Beryllium (mg/kg)	1.94 J	0.492 UJ	1.3 J	1.04 UJ	2,242	410
Cadmium (mg/kg)	14.7	12.6	26.2	17.6	809	200
Calcium (mg/kg)	28,000	22,000	21,000	58,000	N.L.	N.L.
Chromium (mg/kg)	820	170	400	48	448	420
Cobalt (mg/kg)	15	10	5.7	14	100,000	12,000
Copper (mg/kg)	180	52	61	150	75,908	8,200
Iron (mg/kg)	38,000	20,000	8,700	27,000	100,000	N.L.
Lead (mg/kg)	4,240	2,840	1,850	1,870	750	400
Magnesium (mg/kg)	11,000	8,400 J	6,300	240,000	N.L.	N.L.
Manganese (mg/kg)	770 J	530	260 J	340 J	32,250	9,600
Mercury (mg/kg)	0.06	0.05	0.12	0.04	613	61
Nickel (mg/kg)	6.2	8.7	7.9	61	40,877	4,100
Potassium (mg/kg)	380	300	380	1300	N.L.	N.L.
Selenium (mg/kg)	4.59	3.12	1.39	5.24	10,220	1,000
Silver (mg/kg)	2.2	0.49 UJ	1.4 J	1 UJ	10,220	1,000
Sodium (mg/kg)	1,300 J	950	1,200	2,100	N.L.	N.L.
Thallium (mg/kg)	0.673 U	0.492 U	0.513 U	1.04 U	135	160
Vanadium (mg/kg)	9	7.9	8	79	14,308	1,400
Zinc (mg/kg)	1,100 J	660 J	1,200 J	2,500 J	100,000	61,000

^a U.S. EPA Region IX Industrial PRGs for Combined Exposure Pathways

^b IEPA TACO Tier 1 Remediation Objectives for Industrial/Commercial Properties

Bold and highlighted sample concentrations are higher than the most conservative industrial criteria level for that compound

Sample concentrations flagged with U were below method detection limits

Sample concentrations flagged with J are estimated

N.L. = Not listed

ug/kg = micrograms per kilogram

Table 4 - 3

Surface Soil Organic Compounds Sampling Results
IWI Site, Summit, IL

Sample ID	IWI-13	IWI-13D	IWI-14	IWI-15	Criteria Level	
Sample Type	soil	soil	soil	soil	Industrial	
Chemical Name					Region IX ^a	TACO ^b
Volatile Organic Compounds						
1,2,4-Trimethylbenzene (ug/kg)	14 UJ	11 U	58 J	1900 JE	1.7E+05	N.L.
1,3,5-Trimethylbenzene (ug/kg)	14 UJ	11 U	35 J	1600 JE	7.0E+04	N.L.
Acetone (ug/kg)	99 J	150	83 J	260	6.2E+06	1.0E+08
Ethylbenzene (ug/kg)	14 J	35	11 UJ	4200 JE	2.3E+05	5.8E+04
Isopropylbenzene (Cumene) (ug/kg)	14 UJ	11 UJ	11 UJ	180	5.2E+05	N.L.
m&p-xylene (ug/kg)	50 J	140	27 J	5900 JE	2.1E+05	4.2E+05
Naphthalene (ug/kg)	14 UJ	11 U	11 UJ	1100 JE	N.L.	1.8E+03
n-Propylbenzene (ug/kg)	14 UJ	11 U	4.8 J	22 U	2.4E+05	N.L.
o-xylene (ug/kg)	20 J	70	17 J	4400 JE	2.1E+05	4.1E+05
p-Isopropyltoluene (ug/kg)	14 UJ	11 U	11 UJ	34	N.L.	N.L.
Toluene (ug/kg)	14 UJ	11 U	11 UJ	430	5.2E+05	4.2E+04
Semivolatile Organic Compounds						
Bis(2-ethylhexyl)phthalate (ug/kg)	5.0E+05	4.2E+05	1.5E+06	6.2E+05	1.8E+05	N.L.

^a U.S. EPA Region IX Industrial PRGs for Combined Exposure Pathways

^b IEPA TACO Tier 1 Remediation Objectives for Industrial/Commercial Properties

Only samples where one or more concentrations were greater than method detection limits are shown in this table

Bold and highlighted sample concentrations are higher than the most conservative industrial criteria level for that compound

Sample concentrations flagged with U were below method detection limits

Sample concentrations flagged with J are estimated

Sample concentrations flagged with E exceeded instrument calibration limits

N.L. = Not listed

ug/kg = micrograms per kilogram

Table 4 - 4
Container TCLP Metals Sampling Results
IWI Site, Summit, IL

Chemical Name	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	Selenium (mg/L)	Silver (mg/L)
Sample Type	waste	waste	waste	waste	waste	waste	waste	waste
Regulatory Level ^a	5.0	100.0	1.0	5.0	5.0	0.2	1.0	5.0
Sample ID								
IWI-1	0.05 U	0.724	0.05 U	42.4	0.05 U	0.001 U	0.05 U	0.1 UJ
IWI-2	0.05 U	0.28	0.05 U	0.1 U	0.094	0.001 U	0.05 U	0.1 UJ
IWI-3	0.05 U	0.2 U	0.05 U	0.1 U	0.05 U	0.001 U	0.05 U	0.1 UJ
IWI-4	0.05 U	1.96	0.05 U	0.1 U	7.18	0.001 U	0.05 U	0.1 UJ
IWI-5	0.05 U	1.49	0.085	0.278	4.64	0.001 U	0.05 U	0.1 UJ
IWI-6	0.05 U	0.299	0.05 U	0.1 U	0.05 U	0.001 U	0.05 U	0.1 UJ
IWI-7	0.05 U	0.2 U	0.05 U	0.1 U	281	0.001 U	0.05 U	0.1 UJ
IWI-8	0.05 U	0.2 U	0.05 U	0.1 U	0.313	0.001 U	0.05 U	0.1 UJ
IWI-9	0.05 U	0.423	0.05 U	0.1 U	4.95	0.001 U	0.05 U	0.1 UJ
IWI-10	0.05 U	0.289	0.05 U	0.1 U	0.085	0.001 U	0.05 U	0.1 UJ
IWI-11	0.05 U	3.12	0.05 U	0.463	0.072	0.001 U	0.05 U	0.1 UJ
IWI-12	0.05 U	0.2 U	0.05 U	0.1 U	0.173	0.001 U	0.05 U	0.1 UJ

^a 40 CFR - Chapter 1 - 261.24, Maximum concentration of contaminants for the toxicity characteristic
Bold and highlighted sample concentrations are higher than the criteria level for that compound
Sample concentrations flagged with U are below method detection limits
mg/L = milligrams per liter

Table 4 - 5

**Container TCLP Volatile Organic Compounds Sampling Results
IWI Site, Summit, IL**

Sample ID	2-Butanone (MEK) (ug/L)	Tetrachloroethene (ug/L)
Sample Type	waste	waste
Regulatory Level ^a	200,000	700
Chemical Name		
IWI-1	3,700	20 U
IWI-2	100 U	20 U
IWI-3	100 U	210
IWI-4	100 U	20 U
IWI-5	100 U	20 U
IWI-6	100 U	20 U
IWI-7	100 U	20 U
IWI-8	100 U	20 U
IWI-9	100 U	20 U
IWI-10	100 U	20 U
IWI-11	1,500	20 U
IWI-12	100 U	20 U

^a 40 CFR - Chapter 1 - 261.24, Maximum concentration of contaminants for the toxicity characteristic
Bold and highlighted sample concentrations are higher than the criteria level for that compound
Sample concentrations flagged with U were below method detection limits
ug/L = micrograms per liter

Table 4 - 6
Container Other Characteristics of Hazardous Waste Sampling Results
IWI Site, Summit, IL

Analysis	Cyanide Reactivity (mg/kg)	Sulfide Reactivity (mg/kg)	pH (temperature at analysis)	Flashpoint (°F)	Paint filter test
Sample Type	waste	waste	waste	waste	waste
Regulatory Level ^a	250	500	2>pH or pH>12.5	<140	
Sample ID					
IWI-1	1 U	242	6.28	85	Fail
IWI-2	1 U	259	4.5	90	Fail
IWI-3	1 U	212	8.8	85	Fail
IWI-4	1 U	261	5.94	90	Pass
IWI-5	1 U	385	5.47	90	Pass
IWI-6	1 U	302	4.96	105	Fail
IWI-7	1 U	169	5.52	95	Pass
IWI-8	1 U	152	10.7	100	Pass
IWI-9	1 U	445	6.63	155	Pass
IWI-10	1 U	390	5.55	90	Pass
IWI-11	1 U	298	5.55	75	Pass
IWI-12	1 U	485	5.5	120	Pass

^a 40 CFR - Chapter 1 - 261.21 and 261.23

Bold and highlighted sample results exceed the criteria level

Sample concentrations flagged with U were below method detection limits

NA = not applicable

mg/kg = milligrams per kilogram

°F = degrees Fahrenheit

Pass = No free liquid present

Fail = Free liquid present

Table 4 - 7

**Container TAL Metals Sampling Results
IWI Site, Summit, IL**

Sample ID	IWI-1	IWI-2	IWI-3	IWI-4	IWI-5	IWI-6
Sample Type	sludge	sludge	sludge	sludge	sludge	sludge
Chemical Name						
Aluminum (mg/kg)	1800	330	52	3000	10000	74
Antimony (mg/kg)	74	68	3.9 U	2200	110	4 U
Arsenic (mg/kg)	1.42	1.49	0.658 U	7.53	14.5	0.662 U
Barium (mg/kg)	720	650	100	1400	2100	17
Beryllium (mg/kg)	36.3	0.329 U	0.329 U	0.329 U	0.329 U	0.331 UJ
Cadmium (mg/kg)	0.587 J	3.53 J	3.73 J	0.367 J	30.9 J	0.31 U
Calcium (mg/kg)	75	5900	210	5800	14000	290
Chromium (mg/kg)	14000	23	52	27	500	0.66 U
Cobalt (mg/kg)	0.66 U	1.7	0.89	0.66 U	10	0.66 U
Copper (mg/kg)	4	25	80	6.9	290	180
Iron (mg/kg)	350	1500	75	3300	15000	200
Lead (mg/kg)	112	79.7	101	5860	1770	1.87
Magnesium (mg/kg)	66 U	400	66 U	4700	3800	66 U
Manganese (mg/kg)	4.4	35	2.3	95	110	1.6
Mercury (mg/kg)	0.03 U	0.03	0.17	0.03	0.71	0.03 U
Nickel (mg/kg)	1.3 U	1.3 U	1.3 U	30	25	1.3 U
Potassium (mg/kg)	66 U	66 U	950	100	800	66 U
Selenium (mg/kg)	0.461 U	0.986	0.593	1.45	1.62	0.676
Silver (mg/kg)	46	0.33 U	0.33 U	0.33 U	2.1	0.33 U
Sodium (mg/kg)	66 U	500	650	370	3700	89
Thallium (mg/kg)	0.329 U	0.329 U	0.329 U	0.329 U	0.329 U	0.331 U
Vanadium (mg/kg)	15	0.99	0.66 U	0.66 U	3.7	0.66 U
Zinc (mg/kg)	140	340	130	800	1600	4.9

Sample concentrations flagged with U were below method detection limits

Sample concentrations flagged with J are estimated

N.L. = Not listed

mg/kg = milligrams per kilogram

Table 4 - 7 (Continued)

**Results of Container Samples Analysis for TAL Metals
IWI Site, Summit, IL**

Sample ID	IWI-7	IWI-8	IWI-9	IWI-10	IWI-11	IWI-12
Sample Type	sludge	sludge	sludge	sludge	sludge	sludge
Chemical Name						
Aluminum (mg/kg)	20	24	1700	290	220	6.7
Antimony (mg/kg)	4 U	4 U	24	5.4	31	4 U
Arsenic (mg/kg)	0.662 U	0.667 U	1.93	3.27	0.667 U	0.662 U
Barium (mg/kg)	17	18	370	110	490	0.66 U
Beryllium (mg/kg)	0.331 U	0.333 U	0.809	0.336 U	0.333 U	0.331 U
Cadmium (mg/kg)	0.331 UJ	0.331 UJ	5.62 J	0.486 J	9.99 J	0.331 UJ
Calcium (mg/kg)	9400	180	3500	1200	6200	97
Chromium (mg/kg)	0.78	1.8	290	9.6	29	0.66 U
Cobalt (mg/kg)	0.66 U	0.67 U	12	16	1.8	0.66 U
Copper (mg/kg)	5.2	3.9	38	13	15	2.7
Iron (mg/kg)	140	160	2100	5700	380	7.4
Lead (mg/kg)	15900	29.1	4450	40.4	280	0.697
Magnesium (mg/kg)	84	78	1500	460	190	1000
Manganese (mg/kg)	1.4	1.9	50	42	47	0.66 U
Mercury (mg/kg)	0.03 U	0.03 U	0.06	0.03 U	0.03	0.03
Nickel (mg/kg)	1.3 U	1.3 U	1.8	1.3 U	2.6	1.3 U
Potassium (mg/kg)	66 U	67 U	160	67 U	110	66 U
Selenium (mg/kg)	0.803	0.499	0.804	1	0.803	0.536
Silver (mg/kg)	0.33 U	0.33 U	0.91	0.34 U	0.33 U	0.33 U
Sodium (mg/kg)	330	780	1300	210	1300	430
Thallium (mg/kg)	0.331 U	0.333 U	0.329 U	0.336 U	0.333 U	0.331 U
Vanadium (mg/kg)	1.1	0.83	1.6	0.67 U	0.67 U	0.66 U
Zinc (mg/kg)	8	1700	280	69	2000	18

Sample concentrations flagged with U were below method detection limits

Sample concentrations flagged with J are estimated

N.L. = Not listed

mg/kg = milligrams per kilogram

Table 4 - 8

**Container Volatile Organic Compounds Sampling Results
IWI Site, Summit, IL**

Sample ID	IWI-1	IWI-2	IWI-3
Sample Type	sludge	sludge	sludge
Chemical Name			
1,3,5-Trimethylbenzene (mg/kg)	21,000	0.12 U	7
2-Butanone (MEK) (mg/kg)	2,200	7.60	100 U
4-Methyl-2-pentanone (MIBK) (mg/kg)	1,100	2.10	100 U
Acetone (mg/kg)	1,000 U	5.50	100 U
Carbon disulfide (mg/kg)	200 U	0.21	20 U
cis-1,2-Dichloroethene (mg/kg)	200 U	0.22	20 U
Ethylbenzene (mg/kg)	860	0.12	390
Isopropylbenzene (Cumene) (mg/kg)	2,200	0.12 U	20 U
m&p-xylene (mg/kg)	4,400	0.43	1,600
Methylene chloride (mg/kg)	200 U	0.05	20 U
Naphthalene (mg/kg)	4,600	0.21	51
n-Butylbenzene (mg/kg)	2,500	0.11	25
n-Propylbenzene (mg/kg)	11,000	0.12 U	140
o-xylene (mg/kg)	4,900	0.17	380
p-Isopropyltoluene (mg/kg)	670	0.12 U	12
sec-Butylbenzene (mg/kg)	1,200	0.12 U	20 U
tert-Butylbenzene (mg/kg)	200 U	0.12 U	11
Tetrachloroethene (mg/kg)	200 U	0.12 U	82
Toluene (mg/kg)	650	6.90	400

Sample concentrations flagged with U were below method detection limits

N.L. = Not listed

mg/kg = micrograms per kilogram

APPENDIX A

PHOTO LOG



Photo 1 (EPA Site Visit, 16 May 2002) - Poly drum located in the drainage ditch along the western boundary of the site. The picture was taken facing east from the adjacent property.

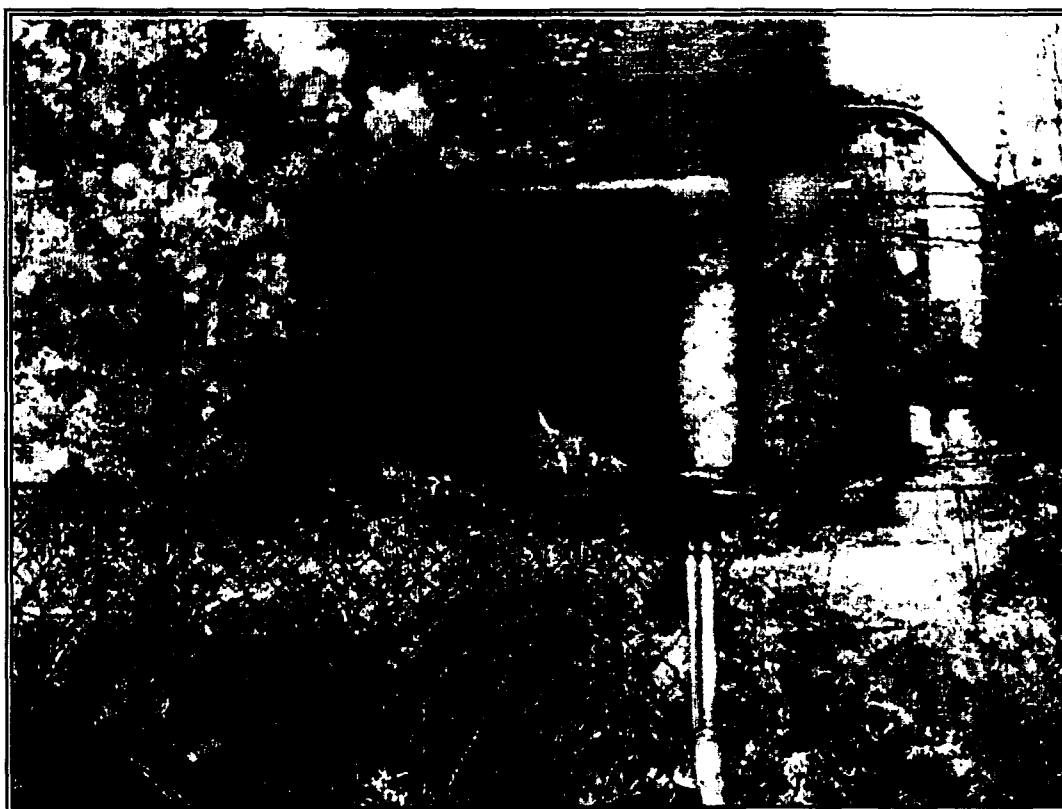


Photo 2 (EPA Site Visit, 16 May 2002) - View of drum storage room from adjacent property facing east.



Photo 3 (EPA Site Visit, 16 May 2002) - Drainage ditch located along western boundary of site.

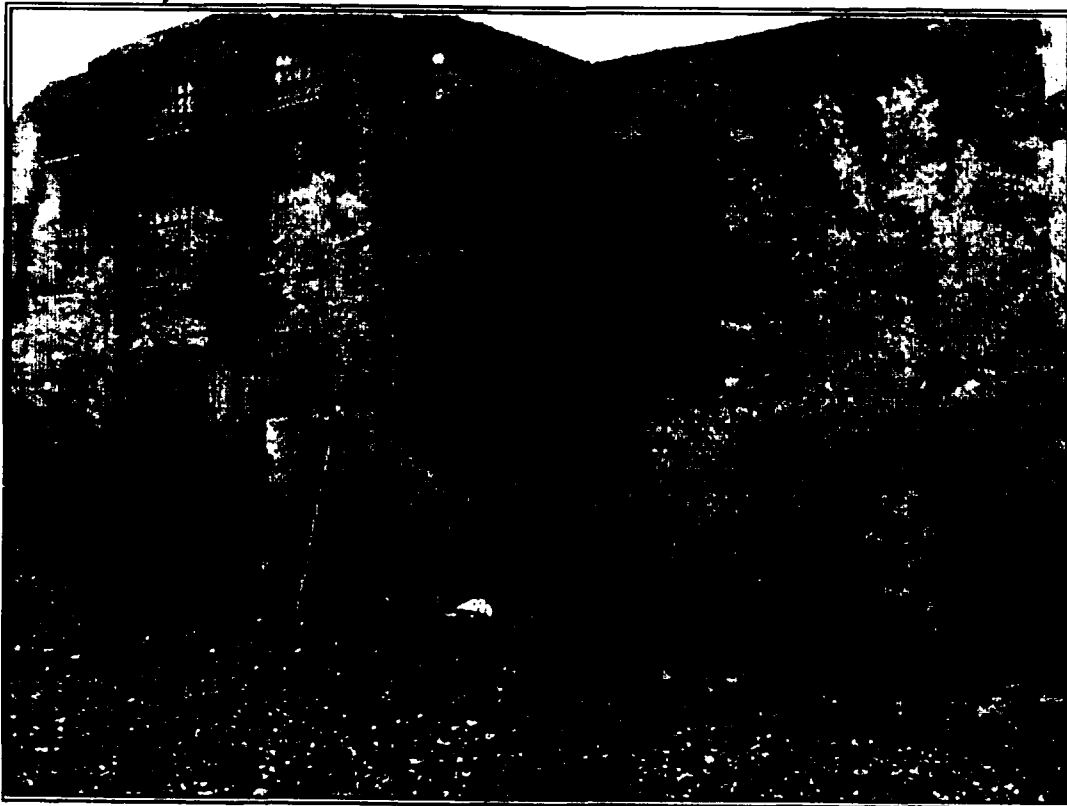


Photo 4 (EPA Site Visit, 16 May 2002) - Northwestern portion of the site facing east.

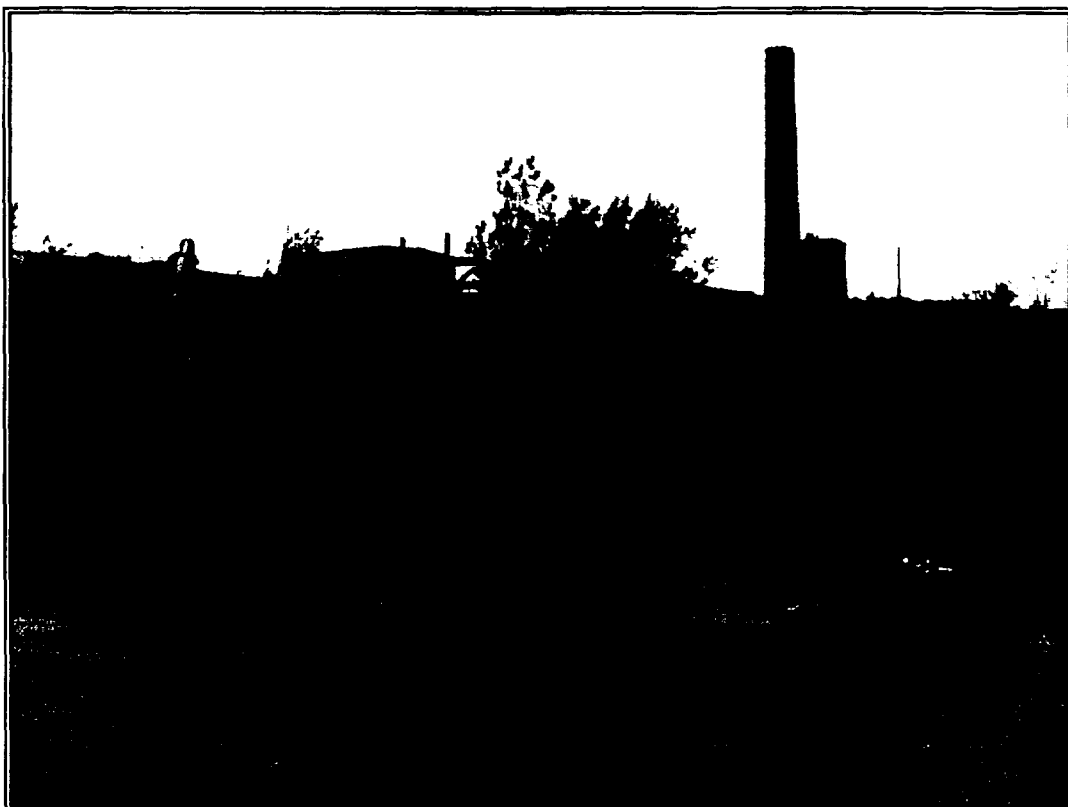


Photo 5 (EPA Site Visit, 16 May 2002) - Demolition of the buildings that were damaged by fire.



Photo 6 (EPA Site Visit, 16 May 2002) - Steel structure of the building during demolition.



Photo 7 (EPA Site Visit, 16 May 2002) - Stacked chemical totes located in Room 5.

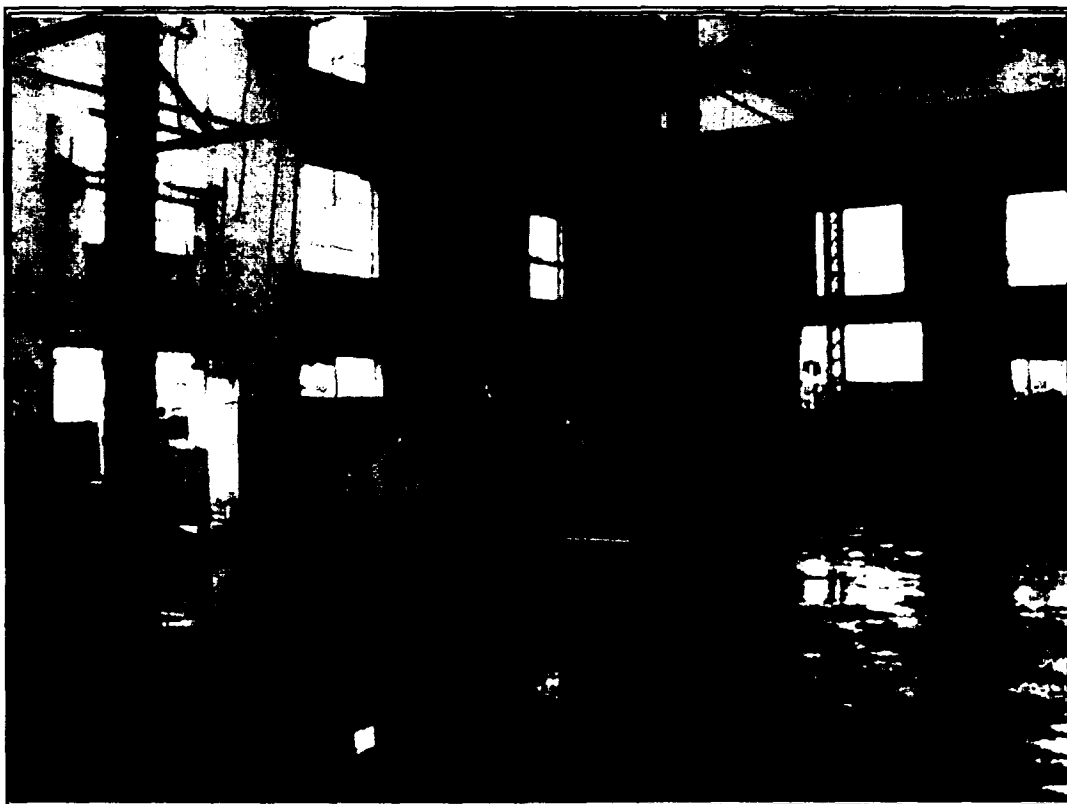


Photo 8 (EPA Site Visit, 16 May 2002) - Containers and drums located in Room 5.

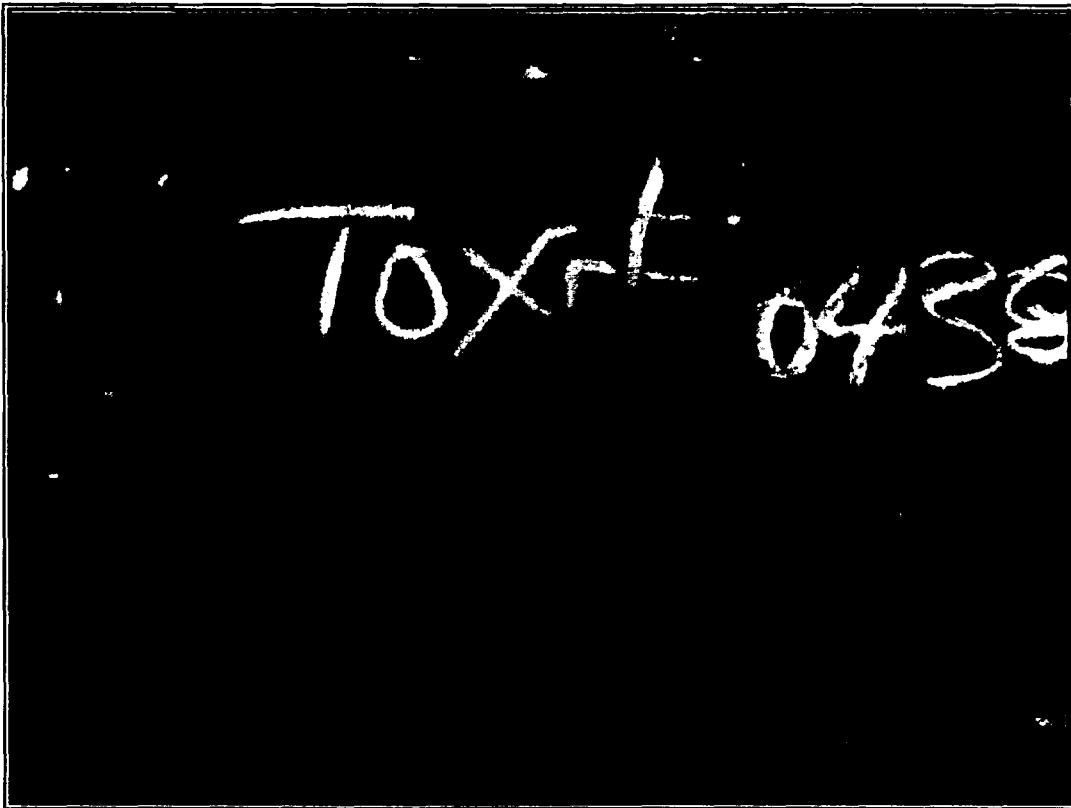


Photo 9 (EPA Site Visit, 16 May 2002) - Information label on one of the drums located in Room 5.

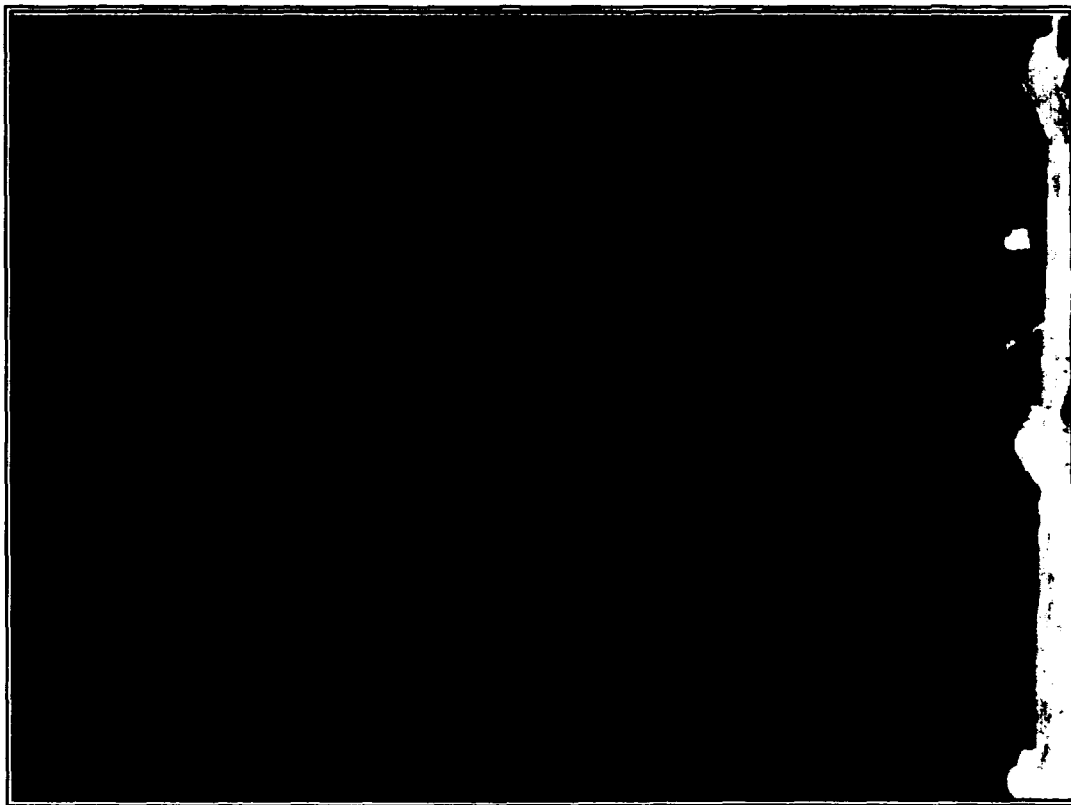


Photo 10 (EPA Site Visit, 16 May 2002) - Trench drain located in the floor of Room 5. The drain originates near the 20,000 gallon ASTs and is filled with a black oily liquid.

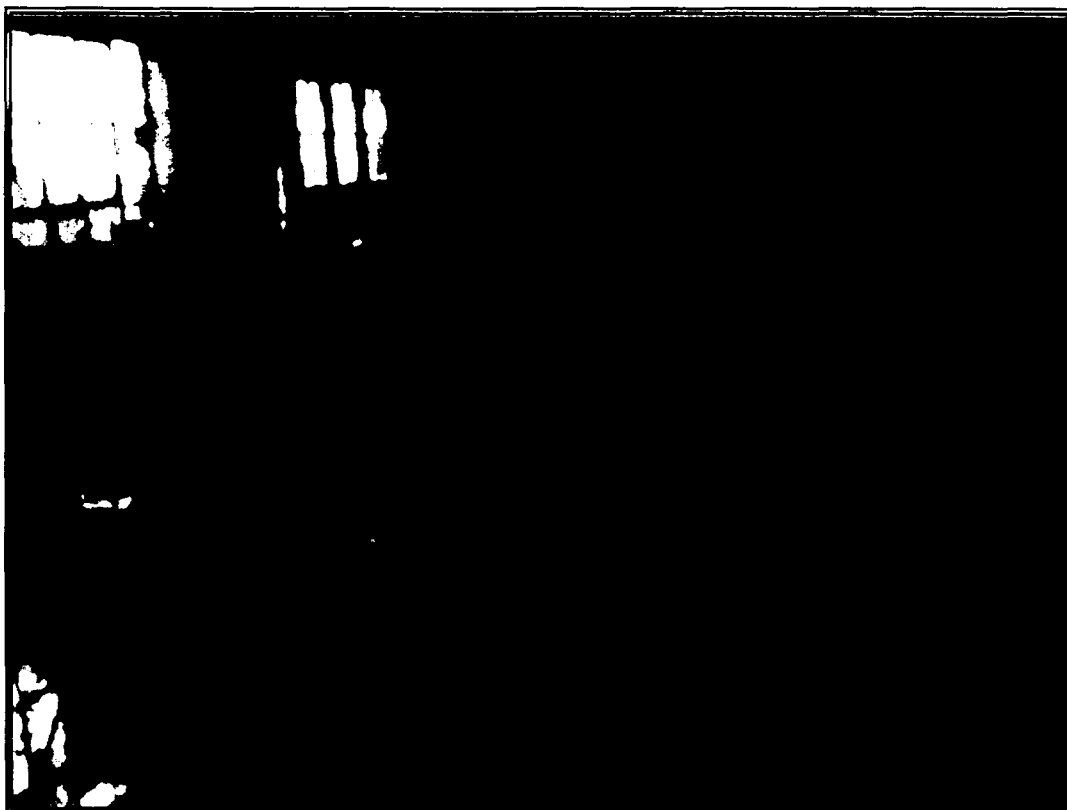


Photo 1 (Site Assessment Preliminary Visit, 14 June 2002) - Typical chemical totes found at the site, approximately 345 gallons.

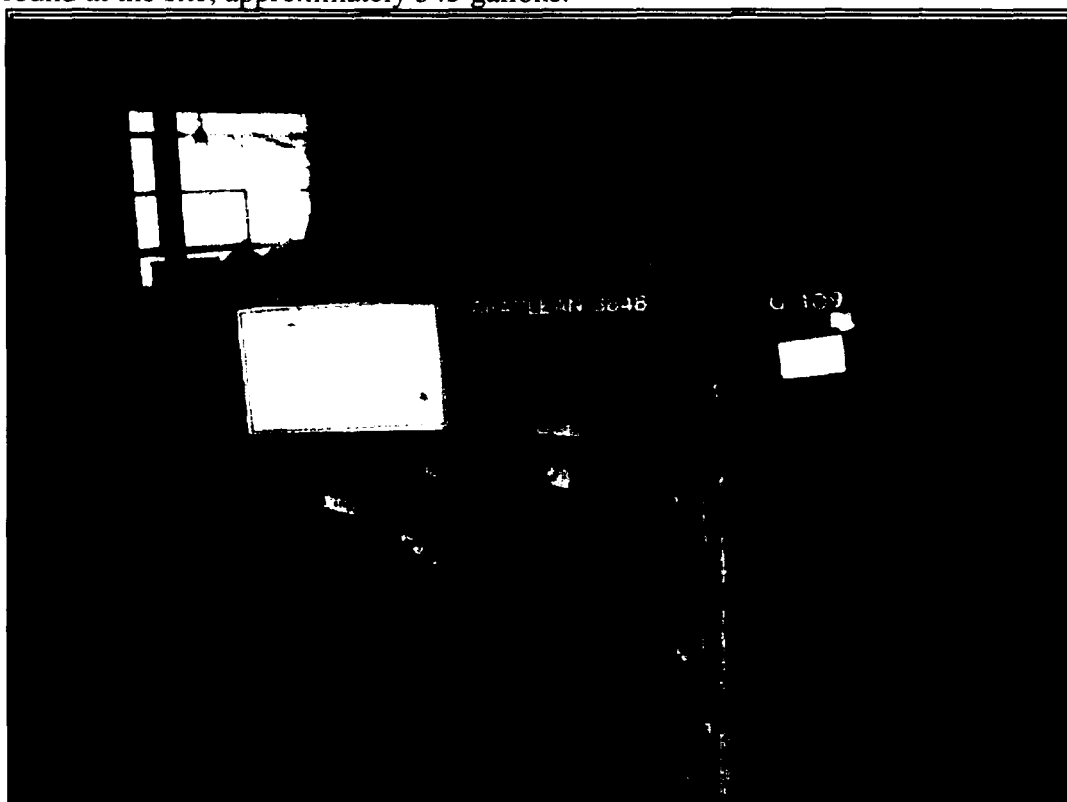


Photo 2 (Site Assessment Preliminary Visit, 14 June 2002) - Closer view of corrosion on the exterior of a typical chemical tote.

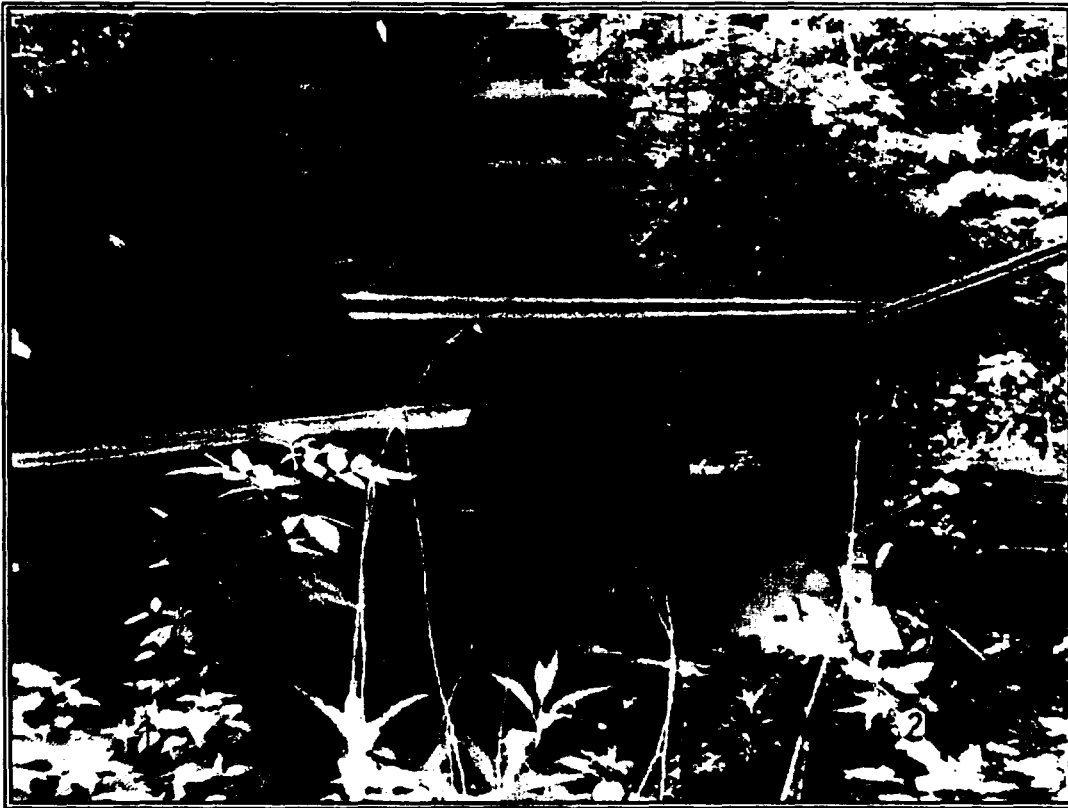


Photo 3 (Site Assessment Preliminary Visit, 14 June 2002) - Sump and suspected power generating equipment located in the Power Generation Room.



Photo 4 (Site Assessment Preliminary Visit, 14 June 2002) - View of HVAC equipment and AST in the northeast corner of the Stack Building. Note that the room has a layer of hardened sludge present.



Photo 5 (Site Assessment Preliminary Visit, 14 June 2002) - Ponding of surface water in the area where the demolished buildings were.



Photo 6 (Site Assessment Preliminary Visit, 14 June 2002) - Water tower platform and piping, the tank has been removed.



Photo 7 (Site Assessment Preliminary Visit, 14 June 2002) - Room 5 facing west, note the drum storage area.



Photo 8 (Site Assessment Preliminary Visit, 14 June 2002) - View of damaged roof in Room 5.

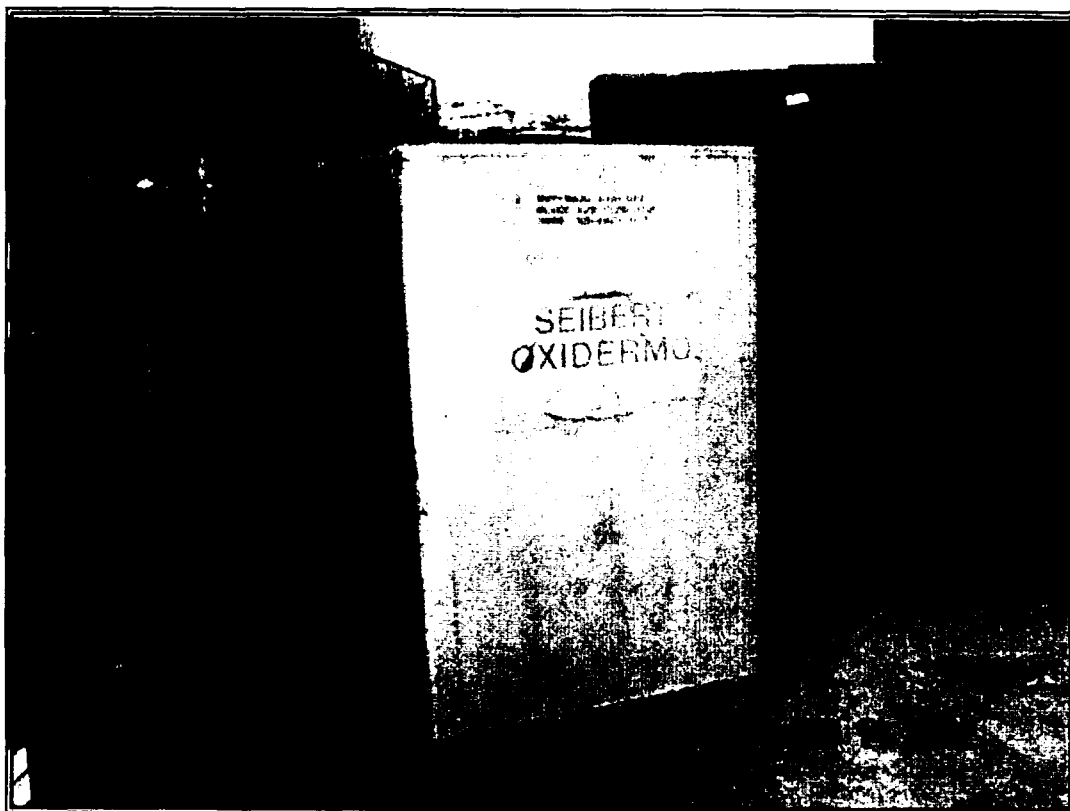


Photo 9 (Site Assessment Preliminary Visit, 14 June 2002) - Containers located in Room 5.

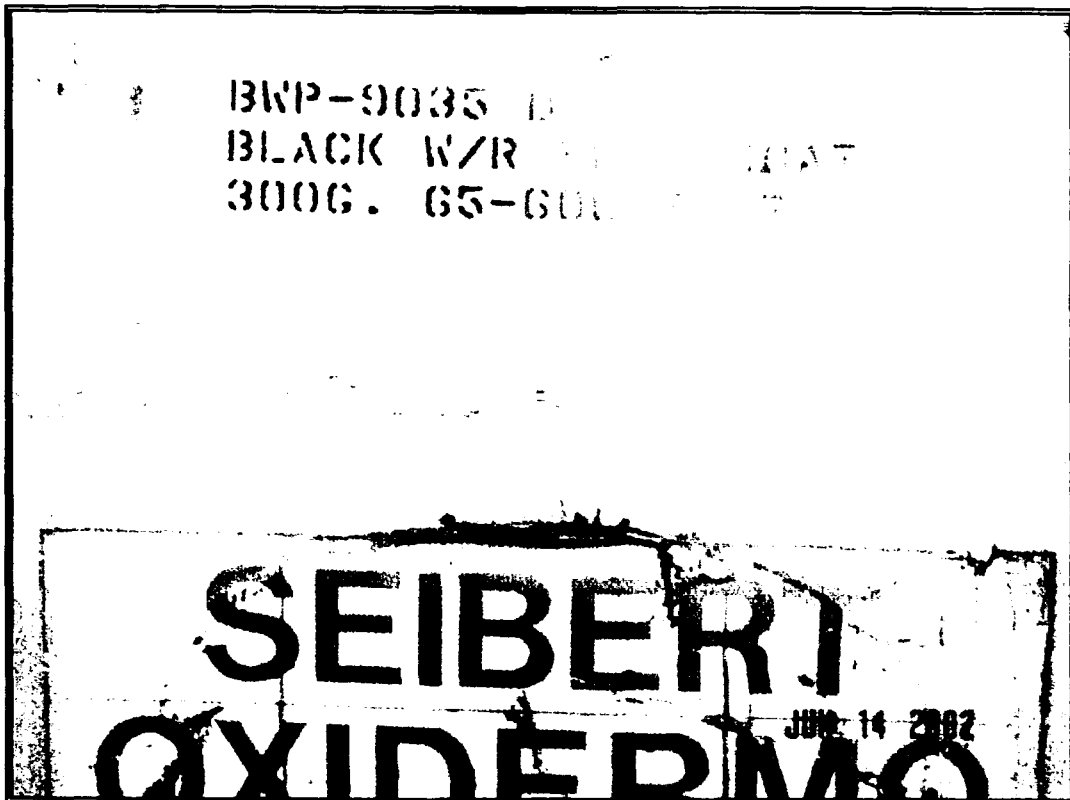


Photo 10 (Site Assessment Preliminary Visit, 14 June 2002) - View of label on container featured in Photo 9.



Photo 11 (Site Assessment Preliminary Visit, 14 June 2002) - Abandoned truck and insulated tank (located in the background) on east side of the Stack Building.



Photo 12 (Site Assessment Preliminary Visit, 14 June 2002) - Oily discharge from Drum Storage Area. This discharge flows directly to the drainage ditch located along the western boundary of the site.

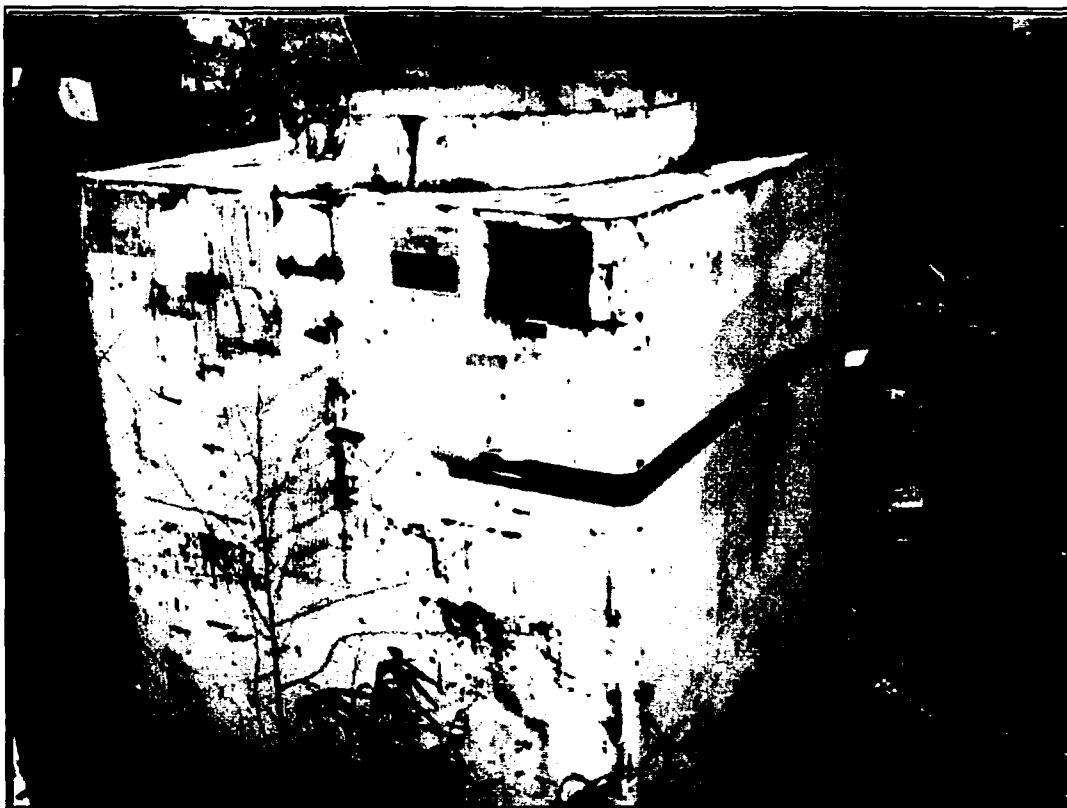


Photo 13 (Site Assessment Preliminary Visit, 14 June 2002) - Chemical tote located near water tower.

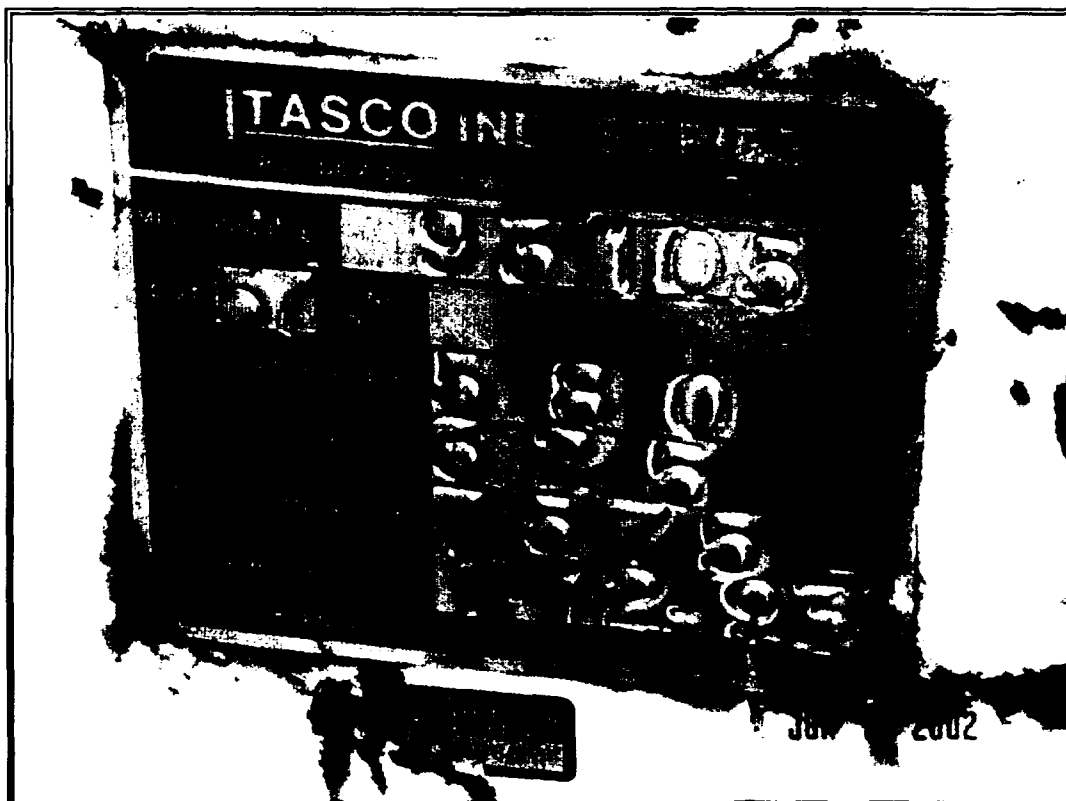


Photo 14 (Site Assessment Preliminary Visit, 14 June 2002) - Label on tote featured in Photo 13.



Photo 15 (Site Assessment Preliminary Visit, 14 June 2002) - Unknown pipe along former east wall of demolished building.



Photo 16 (Site Assessment Preliminary Visit, 14 June 2002) - Containers located in Room 1 near the washing machine and sump.



Photo 17 (Site Assessment Preliminary Visit, 14 June 2002) - Stacked containers and damaged roof located in Room 3.



Photo 18 (Site Assessment Preliminary Visit, 14 June 2002) - View of the site facing north.

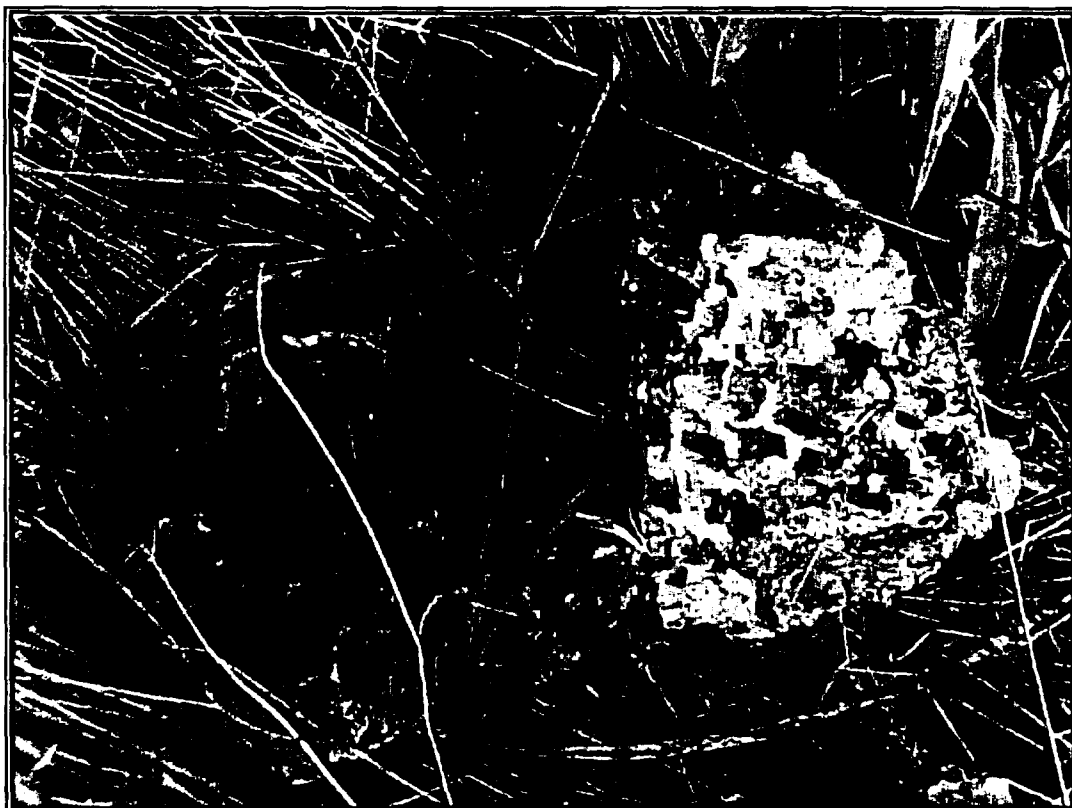


Photo 1 (Site Assessment, 24 June 2002) - Possibly corroded rocks located outside of Room 4.



Photo 2 (Site Assessment, 24 June 2002) - Damaged floor located in the upstairs room, which is directly above Room 4.



Photo 3 (Site Assessment, 24 June 2002) - Fiberglass AST located upstairs labeled as Tung Oil.

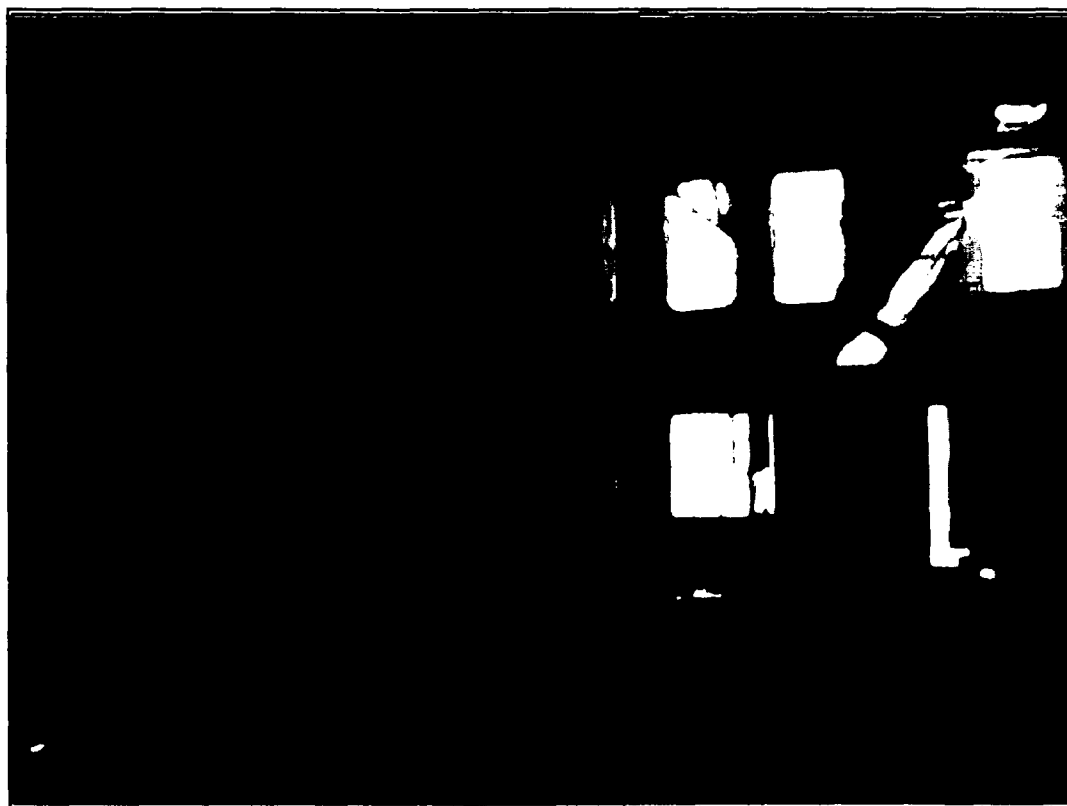


Photo 4 (Site Assessment, 24 June 2002) - Fiberglass AST located upstairs labeled as Crude Coconut Oil.

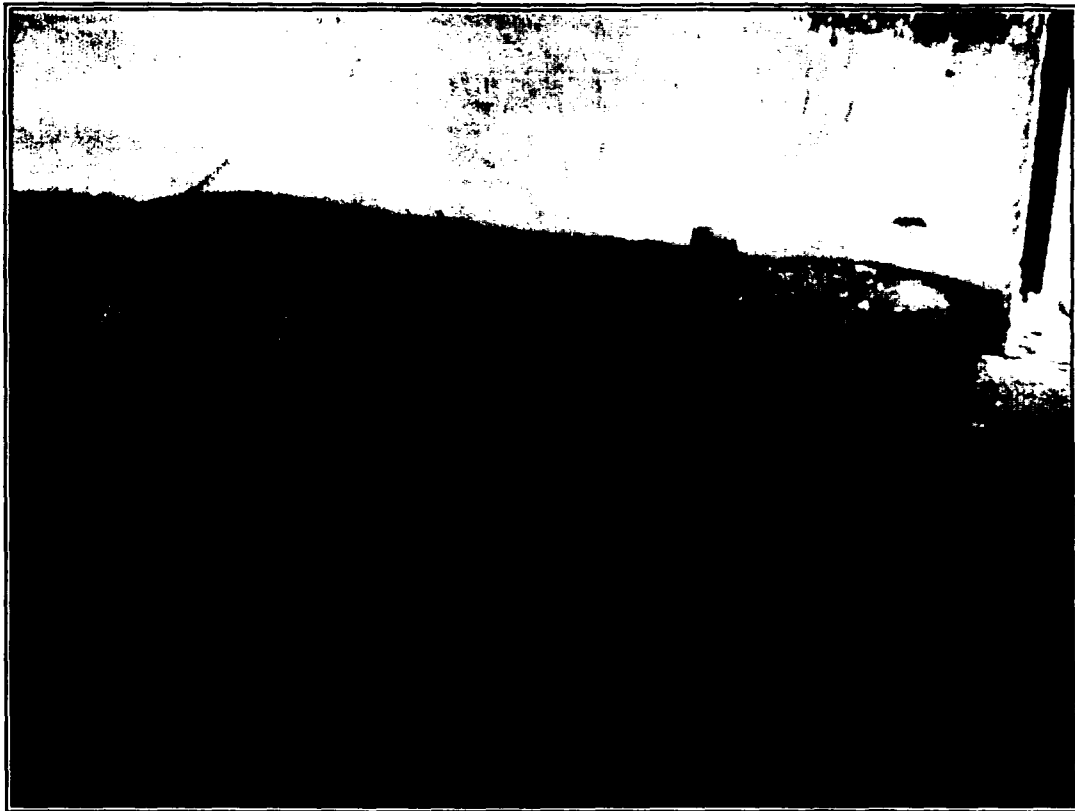


Photo 5 (Site Assessment, 24 June 2002) - Drums located upstairs filled with solids.



Photo 6 (Site Assessment, 24 June 2002) - Damaged pipewrap located upstairs.



Photo 7 (Site Assessment, 24 June 2002) - Sheen and oily mousse on the standing water located near the 20,000 gallon ASTs in Room 5.



Photo 8 (Site Assessment, 24 June 2002) - Transite panels located on the south side of the Stack Building.



Photo 9 (Site Assessment, 24 June 2002) - Unknown tank that originates on the 2nd floor, as seen from Room 3.



Photo 10 (Site Assessment, 24 June 2002) - Containers and drums located in Room 5. The container with a spraypainted "6" is where sample IWI-6 was collected.

APPENDIX B

ANALYTICAL DATA

est. olu s In			ACE Inc. Les Inc.											
750 E Bunker Ct, Suite 500			1680 Lake Front Circle, Ste. B											
Vernon Hills, IL 60061			The Woodlands, TX 78130											
Tel: (847) 918-4094			Phone: (281) 363-2233											
Fax: (847) 918-4055			Fax : (281) 298-5784											
			Date: 7/15/2002											
Attn: Ms. Tonya Balla			VOA8260B & TCLP VOA8260B							Project Name: IWI/ITASCO				
Episode #:			8067											
Lab Sample ID			001	002	003	004	005	006	007	008	009	010	011	12
Client Sample I D			IWI-5	IWI-6	IWI-7	IWI-8	IWI-9	IWI-10	IWI-11	IWI-12	IWI-1	IWI-2	IWI-3	IWI-4
Sample Matrix			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date Sampled			6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002
Time Sampled			1345	1400	1415	1430	1445	1500	1515	1530	1300	1315	1325	1335
Units			RL/5g dry											
VOA 8260B			Quantitation Limit											
1,1,1,2-Tetrachloroethane	ug/kg	120.0									<200000	<120	<20000	
1,1,1-Trichloroethane	ug/kg	120.0									<200000	<120	<20000	
1,1,2,2-Tetrachloroethane	ug/kg	120.0									<200000	<120	<20000	
1,1,2-Trichloroethane	ug/kg	120.0									<200000	<120	<20000	
1,1-Dichloroethane	ug/kg	120.0									<200000	<120	<20000	
1,1-Dichloroethene	ug/kg	120.0									<200000	<120	<20000	
1,1-Dichloropropene	ug/kg	120.0									<200000	<120	<20000	
1,2,3-Trichlorobenzene	ug/kg	120.0									<200000	<120	<20000	
1,2,3-Trichloropropane	ug/kg	120.0									<200000	<120	<20000	
1,2,4-Trichlorobenzene	ug/kg	120.0									<200000	<120	<20000	
1,2,4-Trimethylbenzene	ug/kg	120.0									<200000	<120	70000	
1,2-Dibromo-3-chloropropane	ug/kg	120.0									<200000	<120	<20000	
1,2-Dibromoethane	ug/kg	120.0									<200000	<120	<20000	
1,2-Dichlorobenzene	ug/kg	120.0									<200000	<120	<20000	
1,2-Dichloroethane	ug/kg	120.0									<200000	<120	<20000	
1,2-Dichloropropane	ug/kg	120.0									<200000	<120	<20000	
1,3,5-Trimethylbenzene	ug/kg	120.0									21000000	<120	6800	
1,3-Dichlorobenzene	ug/kg	120.0									<200000	<120	<20000	
1,3-Dichloropropane	ug/kg	120.0									<200000	<120	<20000	
1,4-Dichlorobenzene	ug/kg	120.0									<200000	<120	<20000	
1-Chlorohexane	ug/kg	120.0									<200000	<120	<20000	
2,2-Dichloropropane	ug/kg	120.0									<200000	<120	<20000	
2-Butanone	ug/kg	620									22000000	7600	<100000	
2-Chloroethyl vinyl ether	ug/kg	120.0									<200000	<120	<20000	
2-Chlorotoluene	ug/kg	120.0									<200000	<120	<20000	
2-Hexanone	ug/kg	620									<1000000	<620	<100000	
4-Chlorotoluene	ug/kg	120.0									<200000	<120	<20000	
4-Methyl-2-pentanone	ug/kg	620									11000000	2100	<100000	
Acetone	ug/kg	620									<1000000	5500	<100000	
Acrylonitrile	ug/kg	620									<1000000	<620	<100000	
Benzene	ug/kg	120.0									<200000	<120	<20000	

Lab Sample ID		001	002	003	004	005	006	007	008	009	010	011	012
Client Sample ID		IWI-5	IWI-6	IWI-7	IWI-8	IWI-9	IWI-10	IWI-11	IWI-12	IWI-1	IWI-2	IWI-3	IWI-4
Sample Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date Sampled		6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002
Time Sampled		1345	1400	1415	1430	1445	1500	1515	1530	1300	1315	1325	1335
		Units	RL/5g dry										
VOA 8260B(Contd....)													
Bromobenzene	ug/kg	120.0								<200000	<120	<20000	
Bromochloromethane	ug/kg	120.0								<200000	<120	<20000	
Bromodichloromethane	ug/kg	120.0								<200000	<120	<20000	
Bromoform	ug/kg	120.0								<200000	<120	<20000	
Bromomethane	ug/kg	120.0								<200000	<120	<20000	
Carbon disulfide	ug/kg	120.0								<200000	210	<20000	
Carbon tetrachloride	ug/kg	120.0								<200000	<120	<20000	
Chlorobenzene	ug/kg	120.0								<200000	<120	<20000	
Chloroethane	ug/kg	120.0								<200000	<120	<20000	
Chloroform	ug/kg	120.0								<200000	<120	<20000	
Chloromethane	ug/kg	120.0								<200000	<120	<20000	
cis-1,2-Dichloroethene	ug/kg	120.0								<200000	220	<20000	
cis-1,3-Dichloropropene	ug/kg	120.0								<200000	<120	<20000	
Dibromochloromethane	ug/kg	120.0								<200000	<120	<20000	
Dibromomethane	ug/kg	120.0								<200000	<120	<20000	
Dichlorodifluoromethane	ug/kg	120.0								<200000	<120	<20000	
Ethyl benzene	ug/kg	120.0								860000	120	390000	
Hexachlorobutadiene	ug/kg	120.0								<200000	<120	<20000	
Iodomethane	ug/kg	120.0								<200000	<120	<20000	
Isopropylbenzene	ug/kg	120.0								2200000	<120	<20000	
m/p-xylene	ug/kg	250.0								4400000	430	1600000	
Methyl t-Butylether	ug/kg	120.0								<200000	<120	<20000	
Methylene chloride	ug/kg	120.0								<200000	54	<20000	
n-Butylbenzene	ug/kg	120.0								2500000	110	25000	
n-Propylbenzene	ug/kg	120.0								11000000	<120	140000	
Naphthalene	ug/kg	120.0								4600000	210	51000	
o-Xylene	ug/kg	120.0								4900000	170	380000	
p-Isopropyltoluene	ug/kg	120.0								670000	<120	12000	
sec-Butylbenzene	ug/kg	120.0								1200000	<120	<20000	
Styrene	ug/kg	120.0								<200000	<120	<20000	
tert-Butylbenzene	ug/kg	120.0								<200000	<120	11000	
Tetrachloroethene	ug/kg	120.0								<200000	<120	82000	
Toluene	ug/kg	120.0								650000	6900	400000	
trans-1,2-Dichloroethene	ug/kg	120.0								<200000	<120	<20000	
trans-1,3-Dichloropropene	ug/kg	120.0								<200000	<120	<20000	
Dichloroethene	ug/kg	120.0								<200000	<120	<20000	
Dichlorofluoromethane	ug/kg	120.0								<200000	<120	<20000	
Vinyl Acetate	ug/kg	620.0								<1000000	<620	<100000	
Vinyl chloride	ug/kg	120.0								<200000	<120	<20000	

Lab Sample ID			001		003	004	005	006	7	008	009	010	011	12
Client Sample I D			IWI-5	IWI-6	IWI-7	IWI-8	IWI-9	IWI-10	IWI-11	IWI-12	IWI-1	IWI-2	IWI-3	IWI-4
Sample Matrix			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date Sampled			6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002
Time Sampled			1345	1400	1415	1430	1445	1500	1515	1530	1300	1315	1325	1335
	Units	RL												
TCLP VOA 8260B														
1,1-Dichloroethene	ug/L	5	<20	<20	<20	<20	<20	<20	<20	<20	<20	<25	<20	<20
1,2-Dichloroethane	ug/L	5	<20	<20	<20	<20	<20	<20	<20	<20	<20	<25	<20	<20
2-Butanone	ug/L	25	<100	<100	<100	<100	<100	<100	1500	<100	3700	<120	<100	<100
Benzene	ug/L	5	<20	<20	<20	<20	<20	<20	<20	<20	<20	<25	<20	<20
Carbon tetrachloride	ug/L	5	<20	<20	<20	<20	<20	<20	<20	<20	<20	<25	<20	<20
Chlorobenzene	ug/L	5	<20	<20	<20	<20	<20	<20	<20	<20	<20	<25	<20	<20
Chloroform	ug/L	5	<20	<20	<20	<20	<20	<20	<20	<20	<20	<25	<20	<20
Tetrachloroethene	ug/L	5	<20	<20	<20	<20	<20	<20	<20	<20	<20	<25	210	<20
Trichloroethene	ug/L	5	<20	<20	<20	<20	<20	<20	<20	<20	<20	<25	<20	<20
Vinyl chloride	ug/L	5	<20	<20	<20	<20	<20	<20	<20	<20	<20	<25	<20	<20

0000004

este olu : In		DE hnc les												
750 E Bunker Ct, Suite 500		1680 Lake Front Circle, Ste. B												
Vernon Hills, IL 60061		The Woodlands, TX 78130												
Tel: (847) 918-4094		Phone: (281) 363-2233												
Fax: (847) 918-4055		Fax : (281) 298-5784												
		Date: 7/15/2002												
Attn: Ms. Tonya Balla		TCLP SVOA8270C										Project Name: IWI/ITASCO		
Episode #:		8067												
Lab Sample ID		001	002	003	004	005	006	007	008	009	010	011	12	
Client Sample I D		IWI-5	IWI-6	IWI-7	IWI-8	IWI-9	IWI-10	IWI-11	IWI-12	IWI-1	IWI-2	IWI-3	IWI-4	
Sample Matrix		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
Date Sampled		6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	
Time Sampled		1345	1400	1415	1430	1445	1500	1515	1530	1300	1315	1325	1335	
		Units	RL											
TCLP SVOA 8270C														
1,4-Dichlorobenzene	ug/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
2,4,5-Trichlorophenol	ug/L	120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	
2,4,6-Trichlorophenol	ug/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
2,4-Dinitrotoluene	ug/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
2-Methylphenol	ug/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
3+4-Methylphenol	ug/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
Hexachlorobenzene	ug/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
Hexachlorobutadiene	ug/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
Hexachloroethane	ug/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
Nitrobenzene	ug/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
Pentachlorophenol	ug/L	120	<120	<120	<120	<120	<120	<120	<120	100	<120	<120	<120	
Pyridine	ug/L	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	

0000005

Weston Solutions, Inc.			Advanced Technology Solutions, Inc.											
750 E Bunker Ct, Suite 500			1680 Lake Front Circle, Ste. B											
Vernon Hills, IL 60061			The Woodlands, TX 78130											
Tel: (847) 918-4094			Phone: (281) 363-2233											
Fax: (847) 918-4055			Fax : (281) 298-5784											
			Date: 7/15/2002											
Attn: Ms. Tonya Balla			Total TAL Metals & TCLP RCRA Metals									Project Name: IWI/TASCO		
Episode #:			8067											
Lab Sample ID			001	002	003	004	005	006	007	008	009	010	011	12
Client Sample I D			IWI-5	IWI-6	IWI-7	IWI-8	IWI-9	IWI-10	IWI-11	IWI-12	IWI-1	IWI-2	IWI-3	IWI-4
Sample Matrix			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date Sampled			6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002
Time Sampled			1345	1400	1415	1430	1445	1500	1515	1530	1300	1315	1325	1335
	Units	RL												
Total TAL Metals														
Aluminum	mg/kg	6.70	10000	74	20	24	1700	290	220	6.7	1800	330	52	3000
Antimony	mg/kg	4.0	110	<4	<4	<4	24	5.4	31	<4	74	68	<3.9	2200
Arsenic	mg/kg	0.67	14.5	<0.662	<0.662	<0.667	1.93	3.27	<0.667	<0.662	1.42	1.49	<0.658	7.53
Barium	mg/kg	0.67	2100	17	3.3	18	370	110	490	<0.66	720	650	100	1400
Beryllium	mg/kg	0.333	<0.329	<0.331	<0.331	<0.333	.809	<0.336	<0.333	<0.331	36.3	<0.329	<0.329	<0.329
Cadmium	mg/kg	0.333	30.9	<0.331	<0.331	<0.331	5.62	0.486	9.99	<0.331	.587	3.53	3.73	0.367
Calcium	mg/kg	67.0	14000	290	9400	180	3500	1200	6200	97	75	5900	210	5800
Chromium	mg/kg	0.67	500	<0.66	0.78	1.8	290	9.6	29	<0.66	14000	23	52	27
Cobalt	mg/kg	0.67	10	<0.66	<0.66	<0.67	12	16	1.8	<0.66	<0.66	1.7	0.89	<0.66
Copper	mg/kg	1.3	290	180	5.2	3.9	38	13	15	2.7	4	25	80	6.9
Iron	mg/kg	6.7	15000	200	140	160	2100	5700	380	7.4	350	1500	75	3300
Lead	mg/kg	0.667	1770	1.87	15900	29.1	4450	40.4	280	0.697	112	79.7	101	5860
Magnesium	mg/kg	67.0	3800	<66	84	78	1500	460	190	1000	<66	400	<66	4700
Manganese	mg/kg	0.67	110	1.6	1.4	1.9	50	42	47	<0.66	4.4	35	2.3	95
Mercury	mg/kg	0.03	0.71	<0.03	<0.03	<0.03	0.06	<0.03	0.03	0.03	<0.03	0.03	0.17	0.03
Nickel	mg/kg	1.3	25	<1.3	<1.3	<1.3	1.8	<1.3	2.6	<1.3	<1.3	<1.3	<1.3	30
Potassium	mg/kg	67.0	800	<66	<66	<67	160	<67	110	<66	<66	<66	950	100
Selenium	mg/kg	0.467	1.62	0.676	0.803	0.499	0.804	1	0.803	0.536	<0.461	0.986	0.593	1.45
Silver	mg/kg	0.33	2.1	<0.33	<0.33	<0.33	0.91	<0.34	<0.33	<0.33	46	<0.33	<0.33	<0.33
Sodium	mg/kg	67.0	3700	89	330	780	1300	210	1300	430	<66	500	650	370
Thallium	mg/kg	0.333	<0.329	<0.331	<0.331	<0.333	<0.329	<0.336	<0.333	<0.331	<0.329	<0.329	<0.329	<0.329
Vanadium	mg/kg	0.67	3.7	<0.66	1.1	.83	1.6	<0.67	<0.67	<0.66	15	0.99	<0.66	<0.66
Zinc	mg/kg	1.3	1600	4.9	8	1700	280	69	2000	18	140	340	130	800
TCLP RCRA Metals														
Arsenic	mg/L	0.05	<.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Barium	mg/L	0.2	1.49	0.299	<0.2	<0.2	0.423	0.289	3.12	<0.2	0.724	0.28	<0.2	1.96
Cadmium	mg/L	0.05	0.085	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chromium	mg/L	0.1	0.278	<0.1	<0.1	<0.1	<0.1	<0.1	0.463	<0.1	42.4	<0.1	<0.1	<0.1
Lead	mg/L	0.05	4.64	<0.05	281	0.313	4.95	0.085	0.072	0.173	<0.05	0.094	<0.05	7.18
Mercury	mg/L	0.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001	<.001
Selenium	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	mg/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

estd olu s In			CE hnd les											
750 E Bunker Ct, Suite 500 Vernon Hills, IL 60061 Tel: (847) 918-4094 Fax: (847) 918-4055			1680 Lake Front Circle, Ste. B The Woodlands, TX 78130 Phone: (281) 363-2233 Fax : (281) 298-5784 Date: 7/15/2002											
Attn: Ms. Tonya Balla			RCI, pH & Paint Filter Test										Project Name: IWI/ITASCO	
Episode #: 8067														
Lab Sample ID			001	002	003	004	005	006	007	008	009	010	011	12
Client Sample I D			IWI-5	IWI-6	IWI-7	IWI-8	IWI-9	IWI-10	IWI-11	IWI-12	IWI-1	IWI-2	IWI-3	IWI-4
Sample Matrix			Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date Sampled			6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002
Time Sampled			1345	1400	1415	1430	1445	1500	1515	1530	1300	1315	1325	1335
Units RL/5g dry														
Reactive Cyanide			mg/kg	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Reactive Sulfide			mg/kg	1.0	385	302	169	152	445	390	298	485	242	259
Flash Point			Degrees F	90	105	95	100	155	90	75	120	85	90	85
pH			s.u.	5.47	4.96	5.52	10.7	6.63	5.55	5.55	5.5	6.28	4.5	8.8
Paint Filter Test			Pass/Fail	Pass	Fail	Pass	Pass	Pass	Pass	Pass	Pass	Fail	Fail	Fail
Note:			Pass = No Free Liquid Present Fail = Free Liquid Present											

00000000

Estimate			Analysis					Telephone			Address		
750 E Bunker Ct, Suite 500											1680 Lake Front Circle, Ste. B		
Vernon Hills, IL 60061											The Woodlands, TX 78130		
Tel: (847) 918-4094								Phone: (281) 363-2233					
Fax: (847) 918-4055								Fax : (281) 298-5784					
								Date: 7/10/2002					
Attn: Ms. Tonya Balla			VOA8260B & TCLP VOA8260B					Project Name: IWI/ITASCO					
Episode #:			8054										
Lab Sample ID			001	002	003	004	004DL1	004					
Client Sample ID			IWI - 13	IWI - 13D	IWI - 14	IWI - 15	IWI - 15	IWI - 15					
Sample Matrix			Soil	Soil	Soil	Soil	Soil	Soil					
Date Sampled			6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002					
Time Sampled			16:15	16:30	17:00	17:15	17:15	17:15					
Percent Moisture			50.50	32.72	35.44	68.40	68.40	68.40					
	Units	RL/5g dry					(Diluted Run)	(Medium-Level					
VOA 8260B								Analysis)					
1,1,1,2-Tetrachloroethane	ug/kg	5.0	<14	<11	<11	<22	<130	<400					
1,1,1-Trichloroethane	ug/kg	5.0	<14	<11	<11	<22	<130	<400					
1,1,2,2-Tetrachloroethane	ug/kg	5.0	<14	<11	<11	<22	<130	<400					
1,1,2-Trichloroethane	ug/kg	5.0	<14	<11	<11	<22	<130	<400					
1,1-Dichloroethane	ug/kg	5.0	<14	<11	<11	<22	<130	<400					
1,1-Dichloroethene	ug/kg	5.0	<14	<11	<11	<22	<130	<400					
1,1-Dichloropropene	ug/kg	5.0	<14	<11	<11	<22	<130	<400					
1,2,3-Trichlorobenzene	ug/kg	5.0	<14	<11	<11	<22	<130	<400					
1,2,3-Trichloropropane	ug/kg	5.0	<14	<11	<11	<22	<130	<400					
1,2,4-Trichlorobenzene	ug/kg	5.0	<14	<11	<11	<22	<130	<400					
1,2,4-Trimethylbenzene	ug/kg	5.0	<14	<11	58	1900	<130	<400					
1,2-Dibromo-3-chloropropane	ug/kg	5.0	<14	<11	<11	<22	<130	<400					
1,2-Dibromoethane	ug/kg	5.0	<14	<11	<11	<22	<130	<400					
1,2-Dichlorobenzene	ug/kg	5.0	<14	<11	<11	<22	<130	<400					
1,2-Dichloroethane	ug/kg	5.0	<14	<11	<11	<22	<130	<400					
1,2-Dichloropropane	ug/kg	5.0	<14	<11	<11	<22	<130	<400					
1,3,5-Trimethylbenzene	ug/kg	5.0	<14	<11	35	1600	<130	<400					
1,3-Dichlorobenzene	ug/kg	5.0	<14	<11	<11	<22	<130	<400					
1,3-Dichloropropane	ug/kg	5.0	<14	<11	<11	<22	<130	<400					
1,4-Dichlorobenzene	ug/kg	5.0	<14	<11	<11	<22	<130	<400					
1-Chlorohexane	ug/kg	5.0	<14	<11	<11	<22	<130	<400					
2,2-Dichloropropane	ug/kg	5.0	<14	<11	<11	<22	<130	<400					
2-Butanone	ug/kg	25	<72	<57	<53	<110	<660	<790					
2-Chloroethyl vinyl ether	ug/kg	5.0	<14	<11	<11	<22	<130	<400					
2-Chlorotoluene	ug/kg	5.0	<14	<11	<11	<22	<130	<790					
2-Hexanone	ug/kg	25	<72	<57	<53	<110	<660	<400					
4-Chlorotoluene	ug/kg	5.0	<14	<11	<11	<22	<130	<790					
4-Methyl-2-pentanone	ug/kg	25	<72	<57	<53	<110	<660	<790					
Acetone	ug/kg	25	99	150	83	260	<660	<400					

20000002

Lab Sample ID			001		003	004	004DL1	004						
Client Sample ID			IWI - 13	IWI - 13D	IWI - 14	IWI - 15	IWI - 15	IWI - 15						
Sample Matrix			Soil	Soil	Soil	Soil	Soil	Soil						
Date Sampled			6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002	6/24/2002						
Time Sampled			16:15	16:30	17:00	17:15	17:15	17:15						
Percent Moisture			50.50	32.72	35.44	68.40	68.40	68.40						
	Units	RL/5g dry					(Diluted Run)	(Medium-Level						
VOA 8260B(Contd....)								Analysis)						
Acrylonitrile	ug/kg	25	<14	<11	<11	<22	<130	<400						
Benzene	ug/kg	5.0	<14	<11	<11	7.8	<130	<400						
Bromobenzene	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Bromochloromethane	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Bromodichloromethane	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Bromoform	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Bromomethane	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Carbon disulfide	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Carbon tetrachloride	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Chlorobenzene	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Chloroethane	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Chloroform	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Chloromethane	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
cis-1,2-Dichloroethene	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
cis-1,3-Dichloropropene	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Dibromochloromethane	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Dibromomethane	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Dichlorodifluoromethane	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Ethyl benzene	ug/kg	5.0	14	35	<11	4200	<130	<400						
Hexachlorobutadiene	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Iodomethane	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Isopropylbenzene	ug/kg	5.0	<14	<11	<11	180	<130	<400						
m/p-xylene	ug/kg	10.0	50	140	27	5900	<260	<400						
Methyl t-Butylether	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Methylene chloride	ug/kg	5.0	<14	110	<11	<22	<130	<400						
n-Butylbenzene	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
n-Propylbenzene	ug/kg	5.0	<14	<11	4.8	<22	<130	<400						
Naphthalene	ug/kg	5.0	<14	<11	<11	1100	<130	440						
o-Xylene	ug/kg	5.0	20	70	17	4400	<130	<400						
p-Isopropyltoluene	ug/kg	5.0	<14	<11	<11	34	<130	<400						
sec-Butylbenzene	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Styrene	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
tert-Butylbenzene	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Tetrachloroethene	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Toluene	ug/kg	5.0	<14	<11	<11	430	<130	<400						
trans-1,2-Dichloroethene	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
trans-1,3-Dichloropropene	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Trichloroethene	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Trichlorofluoromethane	ug/kg	5.0	<14	<11	<11	<22	<130	<400						
Vinyl Acetate	ug/kg	25.0	<72	<57	<53	<110	<660	<2000						
Vinyl chloride	ug/kg	5.0	<14	<11	<11	<22	<130	<400						

sod			54			
Lab Sample ID			001		003	004
Client Sample I D			IWI - 13	IWI - 13D	IWI - 14	IWI - 15
Sample Matrix			Soil	Soil	Soil	Soil
Date Sampled			6/24/2002	6/24/2002	6/24/2002	6/24/2002
Time Sampled			16:15	16:30	17:00	17:15
	Units	RL				
TCLP VOA 8260B						
1,1-Dichloroethene	ug/L	5	<5	<5	<5	<5
1,2-Dichloroethane	ug/L	5	<5	<5	<5	<5
2-Butanone	ug/L	25	<25	<25	<25	<25
Benzene	ug/L	5	<5	<5	<5	<5
Carbon tetrachloride	ug/L	5	<5	<5	<5	<5
Chlorobenzene	ug/L	5	<5	<5	<5	<5
Chloroform	ug/L	5	<5	<5	<5	<5
Tetrachloroethene	ug/L	5	<5	<5	<5	<5
Trichloroethene	ug/L	5	<5	<5	<5	<5
Vinyl chloride	ug/L	5	<5	<5	<5	<5

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The Woodlands, TX 78130

Phone: (281) 363-2233

Fax : (281) 298-5784

Date: 7/10/2002

Attn: Ms. Tonya Balla

SVOA8270C & TCLP SVOA8270C

Project Name: IWI/ITASCO

Episode #:

8054

Lab Sample ID

001

002

003

004

Client Sample ID

IWI - 13

IWI - 13D

IWI - 14

IWI - 15

Sample Matrix

Soil

Soil

Soil

Soil

Date Sampled

6/24/2002

6/24/2002

6/24/2002

6/24/2002

Time Sampled

16:15

16:30

17:00

17:15

Percent Moisture

50.50

32.72

35.44

68.40

Units

RL

SVOA 8270C

1,2,4-Trichlorobenzene

ug/kg

5000

<100000

<74000

<77000

<160000

1,2-Dichlorobenzene

ug/kg

5000

<100000

<74000

<77000

<160000

1,3-Dichlorobenzene

ug/kg

5000

<100000

<74000

<77000

<160000

1,4-Dichlorobenzene

ug/kg

5000

<100000

<74000

<77000

<160000

2,2'-oxybis (1-Chloropropane)

ug/kg

5000

<100000

<74000

<77000

<160000

2,4,5-Trichlorophenol

ug/kg

12000

<250000

<190000

<190000

<400000

2,4,6-Trichlorophenol

ug/kg

5000

<100000

<74000

<77000

<160000

2,4-Dichlorophenol

ug/kg

5000

<100000

<74000

<77000

<160000

2,4-Dimethylphenol

ug/kg

5000

<100000

<74000

<77000

<160000

2,4-Dinitrophenol

ug/kg

12000

<250000

<190000

<190000

<400000

2,4-Dinitrotoluene

ug/kg

5000

<100000

<74000

<77000

<160000

2,6-Dinitrotoluene

ug/kg

5000

<100000

<74000

<77000

<160000

2-Chloronaphthalene

ug/kg

5000

<100000

<74000

<77000

<160000

2-Chlorophenol

ug/kg

5000

<100000

<74000

<77000

<160000

2-Methylnaphthalene

ug/kg

5000

<100000

<74000

<77000

<160000

2-Methylphenol

ug/kg

5000

<100000

<74000

<77000

<160000

2-Nitroaniline

ug/kg

12000

<250000

<190000

<190000

<400000

2-Nitrophenol

ug/kg

5000

<100000

<74000

<77000

<160000

3,3'-Dichlorobenzidine

ug/kg

5000

<100000

<74000

<77000

<160000

3-Nitroaniline

ug/kg

12000

<250000

<190000

<190000

<400000

4,6-Dinitro-2-methylphenol

ug/kg

12000

<250000

<190000

<190000

<400000

4-Bromophenyl phenyl ether

ug/kg

5000

<100000

<74000

<77000

<160000

4-Chloro-3-methylphenol

ug/kg

5000

<100000

<74000

<77000

<160000

4-Chloroaniline

ug/kg

5000

<100000

<74000

<77000

<160000

4-Chlorophenyl phenyl ether

ug/kg

5000

<100000

<74000

<77000

<160000

4-Methylphenol

ug/kg

5000

<100000

<74000

<77000

<160000

4-Nitroaniline

ug/kg

12000

<250000

<190000

<190000

<400000

4-Nitrophenol

ug/kg

12000

<250000

<190000

<190000

<400000

Acenaphthene

ug/kg

5000

<100000

<74000

<77000

<160000

Acenaphthylene

ug/kg

5000

<100000

<74000

<77000

<160000

0000005

[illegible]

0000007

